



Northwestern

Health Sciences University



Undergraduate Studies

College of Chiropractic

College of Acupuncture and Oriental Medicine

School of Massage Therapy

2011 - 2013 Catalog

Explore Northwestern Health Sciences University

For seven decades, Northwestern Health Sciences University has worked to develop an INTERNATIONAL REPUTATION for excellence in professional education, patient care, clinical research and community service. Our University is committed to providing students with individual attention from an outstanding faculty and staff; with a rigorous, well-rounded curriculum; and with a clinical foundation dedicated to helping students to become successful natural health care practitioners. The combination of the College of Chiropractic; the College of Acupuncture and Oriental Medicine; and the School of Massage Therapy positions Northwestern as one of the leading natural health care institutions in the United States.

Not only is Northwestern a leader in education, we are also pioneers in community service and caring. At Northwestern, students, faculty and staff are all part of a COMMUNITY OF CARING. It is this community that keeps our alumni active, employees dedicated and our students focused on the “bigger picture” outside of the University. At Northwestern, students find the educational resources to become healers and a University that will prepare them to excel in the health care environment of the 21st Century.

Because many of Northwestern’s instructors are also excellent health care practitioners, they are able to pass on to their students more than technique and skill. They model compassion and understanding, traits that only outstanding doctors of chiropractic, massage therapists, and practitioners of acupuncture and Oriental medicine can display to their patients.

We invite you to explore Northwestern. You’ll discover an exceptional educational experience and an unwavering commitment to excellence embodied in our students, faculty and staff, who are the foundation of our Community of Caring.

OUR MISSION

The mission of Northwestern Health Sciences University is to advance and promote natural approaches to health through education, research, clinical services and community involvement.

GENERAL INFORMATION

Admissions:

The Office of Admissions

Northwestern Health Sciences University

2501 West 84th Street

Minneapolis, MN 55431

Telephone: (952/800) 888-4777, ext. 409

FAX: (952) 888-6713

E-mail: admit@nwhealth.edu

Web site: <http://www.nwhealth.edu>

Publication date: July 2011

PROGRAM CHANGES

Northwestern Health Sciences University reserves the right to change or discontinue academic programs at the University's discretion.

ACADEMIC CALENDAR

The full academic calendar including information on tuition deadlines, board exams and dates of commencement, is available online at <http://www.nwhealth.edu>

On the home page, click on Registrar, then click on Academic Calendar.

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Explore Northwestern

A Focused Vision

MISSION STATEMENT

The mission of Northwestern Health Sciences University is to advance and promote natural approaches to health through education, research, clinical services and community involvement.

VISION STATEMENT

Our vision is to be the University of Choice for natural and integrative health care. We promote conservative health care approaches that focus on the whole person. We provide leadership to develop collaborative and integrative health care models, support clinical research, prepare students for successful careers, and encourage lifelong learning in service to our community.

GOALS, GUIDING PRINCIPLES, AND FUNDAMENTAL VALUES

- We value the strength of a shared mission and vision that guides planning and activities.
- We promote the highest ethical principles in life and practice.
- We provide programs and services that are student- and patient-centered.
- We support shared governance and collaboration among students, faculty, staff and administration.
- We are innovative, progressive and responsive in meeting the needs of our stakeholders.
- We use continuous quality improvement and best practices to inform decision-making.
- We rely on research, clinical experience and patient preferences to inform academic and clinical program.
- We value diversity and cultural competency.
- We practice fiscal responsibility and prudent resource allocation.
- We recognize that health comes from within and value the importance of treating the whole person, assisting innate healing, and promoting health and wellness and disease prevention.

COMMUNITY OF CARING

At the heart of Northwestern Health Sciences University is a simple yet profound core value which is manifested daily by our staff, faculty, students and alumni. This core value is encompassed in a single statement – WE CARE – and is at the heart of our “Community of Caring.” This belief spearheads every activity in which we engage and leads to success in shaping and molding our University’s culture.

What do we care for? What do we care about?

- We care for our students, because they are the future of professions that make a fundamental difference in the lives of hundreds of thousands of people each and every day.
- We care about our mission, because history is only made by organizations that have a clear, unique vision, which is universally embraced by its stake-holders.
- We care for each other, because the journey of doing great things is only bearable if one deeply cares about those with whom they stand shoulder to shoulder.
- We care for those in pain and for those who seek wellness. We care because natural health care should be an essential component of good health for every person.
- We care for our University, which has earned a place at the forefront of the natural health care profession.
- And finally, we care deeply for our alumni, because they have been the rock-solid foundation of our institution for more than seven decades.

NORTHWESTERN'S COMMITMENT TO DIVERSITY

The commitment of the Northwestern community – beginning with the Board of Trustees – to integrate diversity into all aspects of the University's strategic direction is comprehensive. It is demonstrated in the development of curriculum content addressing the critical need to train health care providers for culturally competent health care delivery; a university learning outcome which speaks to a demonstrated awareness and sensitivity to cultural health care practices; programs and policies for the professional development of our faculty and staff; the diversity scholarship program; partnerships with K-12 schools and community service agencies; and the Summer Science Academy for middle school and high school students.

The organizational change needed to support our diversity initiatives is coordinated by the Diversity Commission, which is comprised of members of senior administration, faculty, staff and students. These initiatives include:

- Creating a welcoming campus climate;
- Encouraging service to a diverse community;
- Building opportunities that attract and retain a diverse student body;
- Developing curricula that foster cultural competencies and;
- Cultivating leadership that champions diversity.

A preliminary step in the implementation of the strategic plan for diversity was to describe diversity as it pertains to Northwestern Health Sciences University: *"The community of Northwestern acknowledges the dignity of all human beings and resolves to treat all people with respect and equality. We will accept nothing less. We recognize the differences among us such as culture, race, ethnicity, age, ideology, socioeconomic status, gender, sexual orientation, disabilities, religion and spirituality."*

ASSESSMENT OF LEARNING OUTCOMES

The learning outcomes of the institution define the common ground that unites the programs within the University. They are purposefully broad so that the various colleges and schools can continue to develop their unique identities through varying ways in which the goals are met.

- **Effective Communication**
Graduates will demonstrate effective verbal, non-verbal and written communication skills in a wide variety of contexts, including collaborative activities.
- **Self-Directed and Lifelong Learning**
Graduates will be aware of the limits of one's personal knowledge and experience, and have an intellectual interest in scholarly and creative endeavors. Graduates will actively set appropriate learning goals, pursue them and apply the knowledge gained.
- **Ethical Reasoning**
Graduates will demonstrate a willingness to recognize the values of others while maintaining one's own integrity, and act ethically and professionally in all endeavors.
- **Individuals, Communities and Cultures**
Graduates will demonstrate awareness and sensitivity to the cultural and health practices of individuals and communities. Graduates will be able to identify appropriate health-related resources.
- **Service to the Community**
Graduates will understand and value the benefits of service to the community.
- **Influence of Mind, Body and Spirit on Health**
Graduates will recognize the interrelationship of the mind, body and spirit; and the influence of extrinsic factors on an individual's health.
- **Critical Thought and Knowledge Acquisition**
Graduates will acquire, appraise and apply scientific information. Graduates will contextually organize and synthesize relevant information to address an issue or problem.
- **Competence in One's Discipline**
Graduates will demonstrate competence of appropriate depth and scope for one's discipline.

Explore Northwestern

The Diversity of Our Programs

ABOUT THE UNIVERSITY

Northwestern Health Sciences University was organized in 1999 to provide education, research, clinical care and community service in natural health care disciplines. Northwestern offers its students leadership in educational program standards, a commitment to limited enrollment and an emphasis on ethical, successful practice. The University accepts the challenge of extending this leadership role to meet its new and broader mission and purposes.

The University is composed of:

- The College of Chiropractic, offering the Doctor of Chiropractic degree;
- The College of Acupuncture and Oriental Medicine, offering the Master of Acupuncture, Master of Oriental Medicine, and Herbal Medicine Certificate;
- The School of Massage Therapy, offering a professional certificate program and Associate in Applied Sciences degree;
- College of Undergraduate Health Sciences, including the Bachelor of Science in Human Biology degree completion program and Undergraduate Studies;
- The Wolfe-Harris Center for Clinical Studies;
- The University public clinic system, including three Natural Care Centers, University Health Services and the Edith Davis Teaching Clinic; and
- The University central administration and services, including the Greenawalt Library; University Bookstore; Student Records and Financial Services; Admissions; Alumni, Development and Career Services; Communications; Information Technology; Human Resources; and Continuing Education.

UNIVERSITY FACILITIES

The University's principal facility resides on a 25-acre site in Bloomington, Minnesota. The 300,000-square-foot facility includes nine lecture halls, biological science laboratories, methods laboratories, library, computer labs, athletic facilities, swimming pool, auditorium, cafeteria and three

clinical environments. The University maintains additional clinical facilities around the Twin Cities metropolitan area.

ABOUT THE COLLEGE OF CHIROPRACTIC

The College of Chiropractic at Northwestern Health Sciences University is a visionary school whose innovative ideas and practices have led, and will continue to lead, generations of chiropractic doctors to the forefront of their profession. Northwestern's basic sciences, clinical, chiropractic and business education is superb in preparing students to pass the National Boards and successfully enter clinical practice.

For more than seven decades, excellence has been nurtured and inspired at the College of Chiropractic. The international reputation we have earned has been created in large part by our approach to educating our students.

Northwestern has pioneered an extraordinary and unique clinical system, with three Natural Care Centers, a growing number of interdisciplinary community clinic partnerships, more than 150 community-based private-practice clinics, and final term preceptorship opportunities around the world. The University's public clinic system is the largest provider of natural health care services in Minnesota.

Northwestern's Doctor of Chiropractic program is a full-time day program consisting of more than 4,300 contact hours over 10 trimesters. The University admits new chiropractic students in January and September of each calendar year. Classes are held Monday through Friday.

Chiropractic students at Northwestern may also complete a bachelor's of science degree in human biology while enrolled in the chiropractic program.

ABOUT THE COLLEGE OF ACUPUNCTURE AND ORIENTAL MEDICINE

The College of Acupuncture and Oriental Medicine is the largest and oldest school in the state of Minnesota offering master's degree programs accredited by the Accreditation Commission for Acupuncture and Oriental Medicine. Founded in 1990 as the Minnesota Institute of Acupuncture and Herbal Studies, the College has established itself in the Twin Cities area as a premier provider of education and clinical services in acupuncture and Oriental medicine. Student interns provide acupuncture and Oriental medicine services in the University's on-campus clinics, as well as in a variety of health care clinics, hospitals and community service agencies throughout the area.

The College offers two graduate programs, leading to the Master of Acupuncture and the Master of Oriental Medicine. The College also offers an Herbal Medicine Certificate for licensed acupuncture practitioners who want to expand their skills in Chinese herbal medicine.

The master's degree programs in acupuncture and Oriental medicine emphasize the unified understanding of the mind, body and spirit inherent in traditional Chinese medicine. The College has gathered a multi-national faculty committed to academic and professional excellence and to teaching the extensive body of knowledge and skills necessary for safe and effective practice. Our graduates have the education and skills necessary to develop a successful practice.

The curriculum for the Master of Oriental Medicine program provides more than 3,000 hours of didactic and clinical instruction in acupuncture, Chinese herbology, biomedical clinical sciences and related studies. The program takes three years of full-time enrollment to complete.

The curriculum for the Master of Acupuncture program is similar to that of the Oriental Medicine program, but does not include herbal studies. This program includes more than 2,300 hours of instruction, taking two and two-thirds years of full-time enrollment to complete.

The curriculum for the Herbal Medicine Certificate program provides licensed acupuncturists with almost 500 hours of instruction and 240 hours of clinic internship with which to develop the skills necessary for the safe and effective practice of herbal medicine.

The University admits new acupuncture and Oriental medicine students in September and January of each calendar year. Transfer students may be admitted at the beginning of any trimester. Students in the Herbal Medicine Certificate program take courses according to the schedule for the Master of Oriental Medicine.

ABOUT THE SCHOOL OF MASSAGE THERAPY

Students seeking a rigorous professional massage therapy curriculum will find quality and excellence in Northwestern's School of Massage Therapy. The certificate program at the School of Massage Therapy is accredited by the Commission on Massage Therapy Accreditation (COMTA).

The School of Massage Therapy admitted its first group of students in September of 2000. The massage therapy program is dedicated to advancing the public's perception and acceptance of massage therapy as an important health care option. Massage therapists fill an increasingly important role in the health care field. A growing number of medical doctors and doctors of chiropractic are referring patients to massage therapists all around the United States.

This 41.5 minimum trimester-credit certificate program (907.5 minimum hours) and 60-credit Associate in Applied Science program emphasize a solid foundation in the basic sciences, long a Northwestern hallmark; more than 400 hours of hands-on lab experience; and a structured clinical experience within the School of Massage Therapy Teaching Clinic and other community sites. The School of Massage Therapy has sought to provide widely experienced and prominent practicing therapists as instructors for the program.

The massage therapy program at Northwestern will challenge and inspire students towards becoming natural health care providers, while instilling the importance of actively managing and maintaining one's own health and wellness. Students are educated in interpersonal communication skills and in the necessity of communicating effectively with clients and the public.

There are two 1,100-square-foot massage labs equipped with a minimum of one massage table for every two students. The School also makes use of multiple lecture halls located throughout the University for classes held in a lecture format.

Students receive a professional certificate or Associate in Applied Science degree in massage therapy upon successful completion of the program. Students may enroll in one of two convenient scheduling options: day or evening. The day schedule requires three academic trimesters to complete the certificate program. The evening schedule requires four academic trimesters to complete the certificate program. The Associate in Applied Science degree requires five academic trimesters to complete.

ABOUT THE COLLEGE OF UNDERGRADUATE HEALTH SCIENCES

The College of Undergraduate Health Sciences offers a bachelor's degree completion program in human biology. The Bachelor of Science in Human Biology program (BS) offers students enrolled in the Doctor of Chiropractic program the opportunity to complete an under-graduate degree in human biology. Northwestern also offers a number of undergraduate courses for students who need to complete prerequisite courses.

ACCREDITATION, APPROVALS AND LEGAL STATUS

Northwestern Health Sciences University is accredited by the Higher Learning Commission and is a member of the North Central Association (NCA). The NCA was founded in 1895 as a membership organization for educational institutions. The Association is one of six regional institutional accrediting associations in the United States. Through its Commissions, it accredits and grants membership to educational institutions in the 19-state North Central region. The Higher Learning Commission is recognized by the United States Secretary of Education and by the Council on Higher Education Accreditation. Accreditation was extended to Northwestern in 1988, and was renewed in 1993, 2001 and 2010.

Higher Learning Commission
30 N. LaSalle St., Suite 2400
Chicago, IL 60602-2504
Voice: (800) 621-7440; (312) 263-0456
Fax: (312) 263-7462
Web: <http://www.ncahigherlearningcommission.org>

The Doctor of Chiropractic program offered by the University is accredited by the Commission for Accreditation of the Council on Chiropractic Education (CCE). The Council on Chiropractic Education is recognized by the United States Secretary of Education as the official accrediting body for chiropractic education. Northwestern has

been a member of CCE since the Commission's inception in 1965. Accreditation was extended to Northwestern in 1971, and renewed in 1974, 1978, 1982, 1985, 1991, 1998 and 2005. The next program evaluation is designated for the 2012-2013 academic year.

Council on Chiropractic Education
Commission for Accreditation
8049 N. 85th Way
Scottsdale, AZ 85258-4321
Voice: (480) 443-8877
Fax: (480) 483-7333
E-mail: cce@cce-usa.org
Web: <http://www.cce-usa.org>

The Master of Acupuncture and Master of Oriental Medicine programs offered by the University are accredited by the Accreditation Commission for Acupuncture and Oriental Medicine (ACAOM), which is the accrediting agency recognized by the United States Secretary of Education for the approval of programs preparing acupuncture and Oriental medicine practitioners. Program accreditation was extended in 2005 and 2010.

Accreditation Commission for
Acupuncture and Oriental Medicine
14502 Greenview Drive, Suite 300B
Laurel, MD 20708
Voice: (301) 313-0855
Fax: (301) 313-0912
Email: info@acaom.org

The School of Massage Therapy certificate program offered by the University is accredited by the Commission on Massage Therapy Accreditation (COMTA), which is an agency recognized by the United States Secretary of Education for the accreditation of institutions that award post-secondary certificates, post-secondary diplomas, and academic associate degrees in the practice of massage therapy and bodywork. Program accreditation was extended in 2005 and 2010.

Commission on Massage Therapy Accreditation
5335 Wisconsin Avenue NW, Suite 440
Washington, DC 20015
Phone: (202) 895-1518
Fax: (202) 895-1519
Email: info@comta.org

Northwestern Health Sciences University is registered as a private institution with the Minnesota Office of Higher Education pursuant to Minnesota Statutes, sections 136A.61 to 136A.71. Registration is not an endorsement of the institution. Credits earned at the institution may not transfer to all other institutions.

Minnesota Office of Higher Education
1450 Energy Park Drive, Suite 350
Saint Paul, MN 55108-5227
Voice : (651) 259-3976
Web: <http://www.ohe.state.mn.us>

The Minnesota State Approving Agency has approved Northwestern Health Sciences University for Veterans' education benefits.

Northwestern Health Sciences University is a not-for-profit corporation under articles and bylaws registered with the State of Minnesota, Office of the Secretary of State. The University is qualified as a 501C (3) tax-exempt organization with the Internal Revenue Service of the United States Department of Treasury. 501C (3) status is reserved for organizations operating for educational, religious or charitable purposes.

Explore Northwestern

Seven Decades of Excellence

UNIVERSITY HISTORY

Northwestern Health Sciences University was established in 1999, bringing together a wide array of natural health care programs under one educational roof. However, the history of our dedication to excellence in education began in 1941 with the founding of Northwestern College of Chiropractic, now named the College of Chiropractic at Northwestern Health Sciences University. The College was founded in response to the need existing in the Midwestern states for an educational institution offering a broad program in clinical and chiropractic sciences, built upon a comprehensive background of basic sciences. John B. Wolfe, DC, was the founder and first president. A postwar influx of veterans raised the total enrollment to 280 by 1949. Northwestern prospered as a school because of the rigorous academic goals it established and because of the excellent quality of the students and faculty.

In June of 1949, in order to best advance the interests of the chiropractic profession in Minnesota, the school was reorganized under a nonprofit corporate structure. The new organization obtained as governing members on its Board of Trustees representatives from the Minnesota Chiropractic Association, the Minnesota Chiropractic Foundation and the public. Dr. Wolfe remained president. The College moved to a campus on Park Avenue in Minneapolis. In 1964, a realistic self-evaluation led to the introduction of the Giant Step Program in 1965. This program provided for a new clinic, a two-year pre-professional requirement for all incoming students, remodeling of the main building, including a library and an all-purpose biology teaching laboratory, and the adoption of objectives that would ensure the development of a quality education program designed for the needs of the profession. Northwestern pioneered the six-year chiropractic academic program, which became a requirement of all chiropractic programs by the Council on Chiropractic Education several years later. By 1973, the continuing growth of the College necessitated the search for a new campus, which led to the purchase, in 1974, of a campus in Saint Paul, located on Mississippi River Boulevard.

Northwestern also pioneered the multiple-clinic concept, community-based clinical education, and the final trimester preceptorship for the training of chiropractic interns within clinics across the United States and in some foreign countries. Presently Northwestern owns and operates public clinics in Bloomington, Burnsville and Woodbury, Minnesota.

The college made a major step forward in its development with the purchase in 1983 of a large campus located in Bloomington, a beautiful suburb of the Twin Cities. The campus consists of 25 acres and includes a small lake. The new complex is exceptional throughout in both beauty and quality and is complete with laboratories, lecture halls, classrooms, library, public clinic, auditorium, cafeteria, a gymnasium, a bookstore, and an indoor swimming pool and fitness center.

Northwestern's strategic transition to University status in 1999 was a natural outgrowth of the institution's dedication to being a national leader in natural health care education. Burgeoning interest among health care consumers in natural therapies prompted the College's leadership to begin actively exploring in the late 1990s, the possibility of providing additional natural health care degree programs.

The Minnesota Institute of Acupuncture and Herbal Studies, founded in 1990 by Edith R. Davis, BA, LAc, DiplAc (NCCAOM), joined the University in 1999. The Institute became the Minnesota College of Acupuncture and Oriental Medicine at Northwestern Health Sciences University. Now named the College of Acupuncture and Oriental Medicine at Northwestern Health Sciences University, the college offers both the Master of Acupuncture and Master of Oriental Medicine.

In 2000, the School of Massage Therapy at Northwestern Health Sciences University was introduced. The program is growing, vibrant and highly successful. The School began public clinical services in 2001 and graduated its first class in the spring of 2002.

In 2008, the University expanded its facilities with the construction of the Wolfe-Harris Center for Excellence, a 48,000 square-foot addition which houses the Wolfe-Harris Center for Clinical Studies; the Greenawalt Library; and the Northwestern Student, Alumni and Career Services Center. Renovations to the existing building included construction of the Northwestern Smart Center, a classroom with state-of-the art videoconferencing capabilities; and the Center for Diagnostic Imaging radiology lab which allows students to view digital X-rays on their computer monitors.

Between the two buildings, an exquisitely landscaped Healing Garden, made possible by a generous donation from Standard Process®, offers students, alumni and staff a relaxing, outdoor gathering space.

The University is dedicated to attaining the highest quality in education, scientific research and patient care. Northwestern maintains limited enrollment, fosters clinical research, promotes individualized instruction, provides faculty development and establishes standards for clinical competencies.

Explore Northwestern

A Vibrant Student Life

STUDENT LIFE

Orientation

New Student Orientation is designed to acquaint students with each other, as well as with the campus. Students meet members of the administration, faculty and staff, and students from all programs in the Northwestern community. Various administrative tasks are also resolved at orientation, including payment of fees, acquisition of books and issuance of student ID cards. Upcoming orientation dates are available at <http://www.nwhealth.edu> (follow the links for Student Affairs).

Student Handbook

The University Student Handbook contains rules, regulations, procedures and academic standards that affect students of the University. The topics contained in the Student Handbook are clarified during New Student Orientation and students are responsible for being aware of the policies contained in the Student Handbook and noting changes as they occur. The University Student Handbook is available online at <http://www.nwhealth.edu> (follow the links for Student Affairs) and copies are available in the Office of Student Affairs.

Student Conduct

Students at Northwestern Health Sciences University are preparing for health care professions, with all the privileges, responsibilities, confidence and trust that implies. Northwestern expects each student to exhibit maturity, intelligence, integrity and concern for the rights of others. Students are expected to conform to the legal and ethical standards of their professional and academic community.

Disciplinary regulations at the University are set forth in the Student Handbook in order to give students general notice of prohibited conduct. The regulations should be read broadly and are not designed to define misconduct in exhaustive terms. The University reserves the right to interpret what constitutes a violation of these regulations and to determine the appropriateness of student behavior.

Northwestern is committed to cooperation with federal, state and local authorities in their efforts to enforce existing laws and regulations. Students are expected to abide by these laws and regulations and to accept responsibility for their own conduct. Violations of federal, state or local laws may be reported to appropriate outside agencies for disposition in addition to any University disciplinary action.

Services of Student Affairs

Peer Tutoring Service

The Peer Tutoring Service is provided by the Office of Student Affairs to facilitate the learning experience of all students. The service is provided free of charge and a current list of tutors is available in the Office of Student Affairs. The Office of Student Affairs recruits tutors from the student body, and selects tutors who have demonstrated academic success and a desire to help others.

Counseling Service

The University offers counseling services for all current students who experience academic, personal or relationship concerns. Short-term counseling and educational programs are provided free of charge. On occasion, referrals may be made to outside services. The University does not cover the cost of outside services.

Counseling services available to students include help with study skills, short-term individual counseling, and joint counseling with a partner. Counseling services are provided with the strictest confidentiality. Unless requested by the student, no information will be released without the student's written permission, except in the following circumstances: risk of imminent harm to self or others, a court order, the report of abuse or neglect of a minor or vulnerable adult, or an at risk pregnancy due to the use of certain classes of illicit drugs. Additional information on student rights, confidentiality, clinical record policy and emergency counseling services can be obtained in the Office of Student Affairs.

Educational workshops are offered periodically to students who are interested in improving their performance in areas such as study skills, test anxiety and life stresses. Suggestions for special interest workshops are welcomed. Appointments for counseling with the university counselor are scheduled through the Office of Student Affairs.

Students with Disabilities: Applicants and Students

Qualified persons shall receive reasonable accommodations for access to educational opportunities, programs and activities of Northwestern. The Office of Student Affairs is responsible for the coordination of programs and services for qualified applicants for admission and enrolled students with disabilities. In order for the University to provide reasonable accommodations for students with disabilities, the following process will be used:

1. The Office of Admissions will notify accepted students of the procedures to receive needed support services.
2. It is the responsibility of the individual student to inform the Office of Student Affairs of accommodations that he/she may need as the result of a disability.
3. Students must submit directly to the Office of Student Affairs a written request for accommodations or auxiliary aids. Students may be required to submit medical or other diagnostic documentation of disability and/or limitations. This information will remain confidential to the Office of Student Affairs, except as permitted by the student expressly for providing support services to that student.
4. As needed, the Office of Student Affairs will discuss the student's request for accommodation with the student and faculty member or department involved to determine appropriate accommodation. If there is a question about the appropriateness of a student's requested accommodation, the Office of Student Affairs will inform the student of the University's decision. Northwestern will comply with applicable legal requirements in considering requests for accommodations. However, Northwestern will not waive requirements that are integral to the educational program.
5. Requests must be made in a timely manner. Students must initiate a request for accommodation at least 30 days prior to the beginning of a course/program. Untimely requests may result in delay of accommodation.

6. Complaints concerning the provision of accommodations to students with disabilities will be handled through the Student Complaint process specified in the University Student Handbook.

Applicants are encouraged to review each program's specific "Qualifications" section (listed under "Admissions Information") to determine if he/she is able to meet the qualifications with or without reasonable accommodations. Questions regarding the accommodations process should be directed to the Office of Student Affairs.

Student Leave of Absence

During times of serious illness or when extended time is needed to deal with a personal crisis, students have the option to take a Short Term Leave of Absence of up to seven calendar days. A student must call the Program Dean to request this leave and the Program Dean will notify the student's instructors. The Program Dean may grant an extension of the Leave of Absence, if necessary. Once the student returns to classes, they are responsible for contacting their instructors to create a plan to complete the work that they missed.

International Students

The Office of Student Affairs provides assistance to international students seeking temporary admission to the United States to pursue a full course of study. Forms are generated and student records are continually maintained to assure proper student status and compliance with the Department of Homeland Security, United States Citizenship and Immigration Services (USCIS).

Student and Exchange Visitor Information System

Northwestern Health Sciences University has full approval from the USCIS to enroll foreign students. The Student and Exchange Visitor Information System (SEVIS) is an Internet-based application for electronically tracking and reporting on foreign students in the United States. SEVIS enables schools and program sponsors to transmit electronic information to the USCIS and United States Department of State throughout a student's program in the United States.

SEVIS enables schools to submit school certification applications, update certification information, submit updates to the USCIS that require adjudication, and create and update F-1 (academic) student and dependent records. Designated School Officials (DSOs) maintain the SEVIS program.

Student Government and Organizations

Student Government

The mission of the University Student Senate is to function as a liaison between the student body and the Northwestern community, while enhancing the student experience.

The University Student Senate represents the student body by promoting communication within the University community, coordinating student activities, advocating for student concerns and needs, developing leadership, and setting examples of professional responsibility. Through the Student Senate, students participate in the development of recommendations to the Northwestern administration. Senate-appointed representatives serve on many University committees. Within the Senate, numerous committees exist to address a variety of student needs. Various activities are held throughout the year, giving students an opportunity to socialize and interact with one another. The Senate utilizes the student activity fee to help support these activities and organizations. The Senate includes representatives from each class in each program and elections for all officers are held annually.

Student Organizations

Groups of students who share a common interest, either social or professional, may organize and seek recognition as a student organization through the Office of Student Affairs. These approved organizations reflect a wide range of interests, including an array of professional, political, social and recreational groups. Each term, the University welcomes a number of distinguished lecturers from a variety of fields, who are sponsored by student organizations. The University recognizes the need to keep informed on a full range of professional issues and encourages participation in these events.

Student organizations provide an opportunity for students to participate and contribute in student leadership and governance. By way of student organizations, the student body enjoys the benefits of those contributions that enhance the quality of student life and improve the educational program.

Special interest student organizations plan programs, guest speakers and events with their corresponding local and national professional organizations. They work to form mutually beneficial, reciprocal relationships between students, practitioners and the general public by becoming involved in community activities. They are an important voice of leadership on issues regarding professional practice and education.

The University sponsors extracurricular clubs and activities throughout the year including aerobics, hockey, baseball, softball, volleyball, basketball, soccer and martial arts. The Fitness Center is a facility that is fully funded by the student body through activity fees. The Fitness Center promotes physical and mental well-being for the campus community. The Fitness Center offers aerobic exercise, weight machines and free-weight equipment. Students can receive information about using the Fitness Center from the Office of Student Affairs.

University Health Services

A variety of health care options are available to students and employees through University Health Services, located on campus in the De Rusha Clinical Education Center. Chiropractic, acupuncture and Oriental medicine, massage therapy, and advance practice nursing services are available. Upper-term students under the supervision of faculty clinicians/supervisors provide the chiropractic, acupuncture and massage therapy care.

INFORMATION TECHNOLOGY

E-mail Policy

Northwestern students are assigned a Novell GroupWise e-mail account for the purpose of receiving official University correspondence. Students are responsible for all information, including attachments, transmitted to them via their e-mail account. E-mail accounts can be accessed at <https://mail.nwhealth.edu> on the World Wide Web. The Information Technology Department provides support for GroupWise e-mail users.

Personal Computer Requirement

Northwestern requires that all students have access to a computer for research, training, independent study and institutional services. Students satisfy the access requirement in a variety of ways, including the use of computers in the campus library, public libraries, various computer labs or their own personal computer.

Computer literacy is expected of all students. Computer tutoring is available from the Help Desk Training and Support Specialist. Tutoring is available on the following topics:

- Internet basics;
- Introduction to computers;
- Moodle, a course management system;
- Using Microsoft Word; and
- Creating a PowerPoint presentation.

Students are expected to use computers for various purposes, depending upon the academic program. For specific information about the expectations in your program, please consult the program office.

Qualifying students may purchase a personal computer through Title IV financial aid. Students selecting this option should consult with a representative in the Student Records and Financial Services Office. Students may only exercise this option once during their educational program at Northwestern Health Sciences University.

THE CAMPUS

University Bookstore

The University Bookstore offers most of the books and resources that a student needs for classroom lecture, laboratory and clinical practice. The bookstore also carries Northwestern logo clothing, school supplies, office supplies, medical supplies, nutritional supplements, gifts, snacks and more. The bookstore is open to the public and mail order service is available.

The Greenawalt Library

The mission of the Greenawalt Library is to ensure access to information in support of Northwestern's programs, student and faculty research, continuing education and clinical practice. The library is available to all students, faculty, administration, staff, alumni and natural health care providers. Members of the general public may also use the library's resources.

An online catalog provides easy access to the library's specialized collection of approximately 20,000 books and periodicals. The library provides electronic full-text access to nearly 6,000 journals and subscribes to approximately 300 journal titles relating to natural health care, health sciences and life sciences. Interlibrary loan services link Northwestern to local, regional, national and international networks of libraries, providing students, faculty and staff with resources beyond the library's holdings. The University computer network connects library users with the Internet, class-related materials and standard office software. Library users also have access to a variety of health science databases.

Professional librarians provide group and individual instruction to students, faculty and staff in the use of library resources. The library's web site offers information on library services and access to the online catalog, as well as research guidance and links to pertinent Internet resources. The site highlights online journal subscriptions (with links to

full text of articles when available), new materials and an Interlibrary Loan Request form. The Greenawalt Library offers a collection of audio and video recordings, slides and software, with the appropriate equipment and facilities for their use. Rooms are available for audiovisual viewing and for group study. The library has seating at tables and carrels for quiet study.

The Greenawalt Library is named after Monte H. Greenawalt, DC and his son, Kent S. Greenawalt, President of Foot Levelers, Inc. Their generous gift made it possible to expand this outstanding library facility in 1996. In 2008, the library moved into a larger 14,000 square-foot location in the University's newest addition.

The Wolfe-Harris Center for Clinical Studies

The Wolfe-Harris Center for Clinical Studies (WHCCS), named for William Harris, DC, one of the University's largest benefactors, and John B. Wolfe, DC, the founder and first president of Northwestern College of Chiropractic, was constructed in 1991 as part of the 50-year celebration of Northwestern's founding.

The WHCCS represents the clinical research division of the University with the mission of conducting high-quality clinical research investigating the treatments and diagnostic tools used by natural health care providers. One of its most successful programs, the Back and Neck Research program, is led by established clinical researchers who are well-published in the biomedical literature. They have developed successful collaborations with prominent educational and health care institutions, including the University of Minnesota, the Mayo Clinic, Hennepin County Medical Center, McMaster University and the University of Southern Denmark. Their work is recognized as some of the highest quality in the field of back, neck and headache conditions, and they have acquired more than \$15 million in research funding from the National Institutes of Health, United States Department of Health and Human Services and other agencies. The WHCCS is also committed to translating research into clinical practice. Faculty members have participated in several systematic reviews of the literature and are actively involved in integrating research evidence into Northwestern's curricula and clinical settings.

Students have long played an important role in the research program at the WHCCS by filling specific positions in funded projects. This has included conducting screening interviews, performing data collection and assisting with clinical evaluations. An important objective of the WHCCS is to provide clinicians with the tools and resources they need to

use research information in clinical settings, so they can meet the responsibilities and challenges of the changing health care environment. WHCCS faculty received nearly \$1 million from the National Center for Complementary and Alternative Medicine to develop an innovative research curriculum that spans all of Northwestern's academic programs. This landmark project, in collaboration with the University of Minnesota, will create a generation of health care providers who are able to effectively use research evidence, and integrate it with patient preferences and their own clinical expertise.

De Rusha Clinical Education Center

The J. Lamoine De Rusha Clinical Education Center is a 9,000-square-foot patient care and instructional environment. The De Rusha Center features 15 treatment rooms; a digital X-ray suite; a student work room equipped with networked PCs and Internet access; and a large multi-purpose room that can be used for lectures, labs, presentations or small group discussion. Several treatment rooms are equipped with equipment for recording clinical encounters between students and simulated patients during instructional laboratory sessions and competency examinations. University Health Services is housed in the De Rusha Center.

The De Rusha Center is named in honor of J. Lamoine De Rusha, DC, a long-time professor and dean emeritus at Northwestern. Dr. De Rusha committed his life to Northwestern College of Chiropractic and along with his wife, Klara, became an integral part of the campus culture. Dr. De Rusha was recognized internationally for his knowledge of chiropractic and neurology.

The Edith Davis Teaching Clinic

The Edith Davis Teaching Clinic is a 1,696-square-foot patient care and instructional facility for student interns in the College of Acupuncture and Oriental Medicine. The interns are closely supervised at all times by highly experienced licensed clinical instructors. The clinic is open to the public and provides the community with an opportunity to receive quality acupuncture treatment and traditional Chinese medicine services, while providing invaluable, hands-on clinical experience for the student interns. The Edith Davis Teaching Clinic features six treatment rooms and a full herbal dispensary.

The teaching clinic is named in honor of Edith Davis, BA, LAc, DiplAc (1921–2008), the founder and first president of the Minnesota Institute of Acupuncture and Herbal Studies (MIAHS), which is now known as the College of Acupuncture and Oriental Medicine. Davis was a licensed acupuncture practitioner and teacher. Beginning in 1982, she became directly involved with the evolution of national acupuncture policy development and national certification standards and was the founding member of the Acupuncture Association of Minnesota. Davis was presented with the Acupuncturist of the Year Award by the American Association of Acupuncture and Oriental Medicine in 1985. The clinic is dedicated to her leadership and contribution to the acupuncture and Oriental medicine community in Minnesota.

Explore Northwestern

Our Location: Minnesota and the Twin Cities

Minnesota offers a wealth of indoor and outdoor activities year-round, whether your interest lies outdoors or in the culture of the city. Get ready to pack up and portage a canoe as you explore Minnesota's breathtaking Boundary Waters Canoe Area Wilderness in northern Minnesota. Camp on the banks of the Mississippi or indulge in a nature hike in one of the dozens of nearby state, county and city parks. Walk, canoe, sail, ski, skate or snowmobile at one or more of the not 10,000, but 15,000 famed Minnesota lakes – many located in the greater Twin Cities area.

Northwestern's location places you in the heart of Minneapolis and Saint Paul, a rapidly growing metropolitan area of nearly three million people. Minnesota enjoys a broad ethnic diversity in its population, which includes a large number of Native Americans, Hispanic Americans, African Americans and Asian Americans. Historically, Minnesota has had one of the strongest economies nationally; as well as an excellent public school system with one of the highest high school graduation rates in the United States. In the Twin Cities, you'll find a friendly community atmosphere amid big city opportunities. Your options are limitless.

Take in a game of your favorite professional sport: baseball, football, basketball, hockey, soccer and more. Enjoy excellent music, theater and dance throughout the year. The Twin Cities is home to the internationally recognized Guthrie Theater, Children's Theater and the Ordway Theater, as well as numerous smaller theaters and a variety of dance companies. Nightlife in the Twin Cities will catch your interest, offering entertainment from coffeehouses to nightclubs, with dancing from salsa to swing.

Minnesota's theater of seasons caters to the individual adventurer in all of us. With the snow and cold weather, winter also brings great opportunity to get outside. Skating, skiing, sledding, ice fishing, hunting and snowmobiling are just a few activities available right in the cities. Saint Paul's annual Winter

Carnival celebrates the season with parades, ice sculptures and fun cold-weather activities. Minneapolis' annual celebration of the state's water heritage, the mid-summer Aquatennial, is a party of parades, concerts and made-to-order water events.

Minnesota has for many years been one of the leading states in the country for both traditional and innovative natural health care. It is the home of the Mayo Clinic, the University of Minnesota Hospitals and the Sister Kenny Institute; and was the birthplace of Group Health, one of the nation's earliest HMOs.

The Twin Cities area also ranks high in quality-of-life ratings, with a cost of living that is modest in comparison with that of many large cities. The cities are served by a network of buses and a light rail line for public transportation and freeways provide easy access to different parts of the Twin Cities, with downtown Minneapolis and downtown Saint Paul only 20 minutes apart.

The Minnesota outdoors is hard to avoid. One has a choice of two zoos, picnic grounds, amusement parks, art fairs, music festivals and a Renaissance Festival. Indoor events beckon, too. A number of museums, including a hands-on Science Museum, art centers, and any one of the 22 colleges and universities in the metropolitan area all offer a wealth of choices. Take your pick from hundreds of incredible restaurants serving up dishes from Scandinavia, Thailand and Greece (just to name a few). And don't forget the internationally recognized Mall of America, the largest indoor shopping mall in the United States, located only minutes from campus.

Whatever season you choose, or whatever activity captures your imagination, you'll find it close at hand in Minnesota

Explore Northwestern

Experience in a Pioneering Clinic System

The Northwestern Health Sciences University Clinic System is comprised of:

- The Bloomington Natural Care Center, located on the University campus;
- The Natural Care Center at Woodwinds, located on the Woodwinds Health Campus in Woodbury;
- The Edith Davis Teaching Clinic of the College of Acupuncture and Oriental Medicine, located on the University campus;
- University Health Services, located in the De Rusha Clinical Education Center on the University campus; and
- The Burnsville Natural Care Center, located in Burnsville on River Ridge Boulevard, off Nicollet Avenue South and Hwy 13.

Northwestern's Natural Care Centers are unique, integrative natural health care clinics providing chiropractic, acupuncture, Oriental medicine, massage therapy, naturopathic medicine, healing touch, and advanced practice nursing services. In addition, the clinics make available to patients a variety of natural health care products. It is an important part of the University's mission to explore integrative care delivery models, in which a spectrum of natural health care providers work collaboratively with other health care providers to provide the best possible comprehensive care. The Natural Care Centers are innovative in recognizing that natural health care professions are a part of the broader health care system.

Northwestern's teaching clinics provide exceptional clinical internships and students benefit from the low student-supervisor ratio in the clinical setting. Students have the opportunity to provide care to fellow Northwestern Health Sciences University students and employees of the University, as well as the community at large. Northwestern is unique in offering clinical experiences early in the academic program and in providing a learning atmosphere where students are able to demonstrate and utilize clinical skills throughout their education.

Northwestern's public clinic system is the largest provider of natural health care services in Minnesota.

In addition to the University clinic system, students also serve in community-based internships and preceptorships, under the guidance of associate clinical faculty. University students provide care in varied community settings, such as an HIV/AIDS service agency, an oncology center, a rehabilitation facility for the disabled, community clinics in underserved areas of Minneapolis, inpatient hospital settings, a senior care facility and at community events. Northwestern has established clinics at Pillsbury House and at the Salvation Army's Minneapolis Harbor Light Center where students provide free care to a diverse patient population. Northwestern also strengthens its community involvement through partnerships with other organizations committed to natural health care such as HealthEast, Abbott Northwestern Hospital and the University of Minnesota, where more clinical opportunities for our students exist.

Overall, the University clinic system functions under the highest standards, advocating "best practices" in health care which incorporates patient preferences, clinical judgment and research evidence within an ongoing clinical integrity program.

Explore Northwestern

Helping To Guide Your Career Path

CONTINUING EDUCATION DEPARTMENT

Northwestern Health Sciences University recognizes that continuing education is vital to the future of natural health care. Northwestern's continuing education programs promote the professional and personal growth for our students and practitioners by providing diverse educational opportunities.

The Continuing Education Department sponsors more than 130 live seminars/programs each year, as well as distance learning courses, both online and on DVD. Topics for these courses include nutrition, orthopedics, neurology, sports injuries, pediatrics, rehabilitation, occupational health, radiology, professional boundaries, Oriental medicine, ethics, advanced needling, and massage therapy, among others. In addition to providing practitioners with applicable and appropriate knowledge, these programs often fulfill licensure renewal requirements established by state and/or national licensing authorities.

When appropriate, Northwestern students may augment their education by attending continuing education courses on a non-credit basis. Often continuing education course material can expand the classroom experience. Students who qualify may attend predetermined courses for a nominal charge or assist as monitor free of charge. For one year following graduation, a 50 percent discount is given off the cost of seminars offered exclusively by the Continuing Education Department. We encourage students to visit our office to find out more about these opportunities.

ALUMNI ASSOCIATIONS

After graduation, Northwestern students can look forward to continuing contact with the University through their alumni associations. Service to the University and to our alumni is at the heart of the alumni associations of the College of Chiropractic; the College of Acupuncture and Oriental Medicine; and The School of Massage Therapy. Each association strives to build and foster understanding of the University and to provide and facilitate communication between alumni and their alma mater. The associations provide a forum that encourages identity and pride in the University. They assist in fundraising and financial support, student

recruitment, scholarship support and are an excellent networking resource for career opportunities. Northwestern Health Sciences University is committed to providing quality programs and services to all alumni.

CAREER SERVICES

The health professional student faces many choices after graduation, but some of the most important involve what type of practice they will have, where they will work and with whom they will work. Northwestern's Office of Alumni, Development and Career Services serves as a resource center for students, graduates and other health professionals who might benefit from current information on licensure laws and regulations, professional boards, professional associations, demographic profiles from state populations, practice management and development information, and developing relationships with vendors. The Career Services Center sponsors the Practice Success Series, bringing in speakers on topics related to practice and business management for students and alumni. The Center also provides contact with professionals who facilitate practice acquisitions, and who advise and negotiate transactions and associate arrangements between new graduates and established practitioners.

There are numerous opportunities available across the United States and Canada, as well as other countries for doctors of chiropractic, practitioners of Oriental medicine, acupuncturists and massage therapists. Mentorship relationships with other alumni can be coordinated with Alumni, Development and Career Services.

Most graduates go directly into clinical practice in a location of their choice. The Career Services Center assists students in helping with their career-related decisions. Current opportunities available in clinical practice are posted in the Office of Alumni, Development and Career Services and are also available to be mailed, or e-mailed, as a monthly newsletter to recent graduates. This information is also available on <http://www.nwhealth.edu> (follow the Alumni/ Career Services links).

OCCUPATIONAL OUTLOOK

College of Chiropractic

The United States Department of Labor Occupational Outlook Handbook for 2010-2011 states that "Employment of chiropractors is expected to increase 20 percent between 2008 and 2018, faster than average for all occupations. Projected job growth stems from increasing consumer demand for alternative health care. Because chiropractors emphasize the importance of healthy lifestyles and do not prescribe drugs or perform surgery, chiropractic care is appealing to many health-conscious Americans. The rapidly expanding older population, with its increased likelihood of mechanical and structural problems, also will increase demand for chiropractors."

Doctors of Chiropractic have many different practice opportunities, from solo practice to group offices, from integrative health care clinics to employment in mainstream health care clinics. With licensure opportunities in all 50 states, Puerto Rico and many foreign countries, chiropractic is a maturing, growing and widely accepted profession. Insurance coverage is widely available. As professional relationships with medical practitioners improve and lead to increasing collaborative care opportunities, chiropractic is expected to become more mainstream with time.

For data regarding the placement and success of our graduates, contact the Office of Alumni, Development and Career Services.

College of Acupuncture and Oriental Medicine

Graduates face a marketplace where these professions are enjoying widening acceptance. Currently, most practitioners have private practices, while an increasing number are employed or collaborate with community service institutions, major health care agencies and health maintenance organizations. Regulation of acupuncturists and Oriental medicine practitioners varies widely: from licensure, to regulation, to being unregulated. Insurance coverage for acupuncture services is slowly increasing.

There is a growing interest in integrative health care nationwide. In Minnesota, Hennepin County Medical Center has long offered Oriental medicine treatment by licensed acupuncturists and has built a national

name in addiction treatment and research. Northwestern's groundbreaking Woodwinds Natural Care Center also provides inpatient care services. Acupuncture is widely seen as a profession on the rise and is emerging as an important health care profession that stands on its own and can integrate with mainstream health care services.

School of Massage Therapy

Massage therapy is a profession that is rapidly maturing. Educational programs have proliferated in recent years across the nation, and with national program accreditation recognition by the Commission on Massage Therapy Accreditation, an important step for stabilizing and standardizing massage therapy education and practices has been taken.

An important trend is the inclusion of massage therapy in many mainstream health care facilities and their interest in credentialing massage therapy providers from legitimate, academically oriented programs such as Northwestern's.

Graduates have many opportunities for private solo practice, working with other health care professionals (doctors of chiropractic are the single largest health care profession that employ massage therapists), or working in health care institutions such as clinics and hospitals. Insurance coverage for some conditions and types of injuries is available in certain states and increasing, especially in alliance with medical referrals.

The United States Department of Labor Occupational Outlook Handbook for 2010-2011 notes "Employment for massage therapists is expected to increase 19 percent from 2008 to 2018, faster than average for all occupations. Employment will grow as more people learn about the benefits of massage therapy. In addition, as an increasing number of states adopt licensing requirements and standards for therapists, the practice of massage is likely to be respected and accepted by more and more people."

Explore Northwestern

Our Financial Policies

Northwestern Health Sciences University is a private, non-profit institution that derives its financial resources from alumni gifts, private foundation grants, clinic fees, student tuition and the benevolence of the University's alumni and friends.

All tuition and fees are due and payable the end of the third week of class. After the completion of the third week of class, if tuition has not been paid or if arrangements for payment have not been made with the Student Records and Financial Services Office, a \$150 (US dollars) late fee will be assessed and registration for that trimester will be canceled. To be reinstated, the student must pay tuition and fees in full or make payment arrangements with the Student Records and Financial Services Office.

Students who have not paid tuition by the end of the third week of class are to sign a promissory note that will be held by the Accounting Office until the tuition has been paid. This will be required in the following cases:

1. If a student has not satisfactorily completed and filed all financial aid applications prior to the first day of class (except first-term students). NOTE: Satisfactory completion and filing of financial aid applications is defined as having all paperwork submitted for review to the Financial Aid Office, and the aid has been approved by the lender/ guarantor.
2. If a student with special tuition agreement has not paid in full the portion of tuition due by the end of the third week of class.
3. If a student has not received financial aid, and is not able to pay tuition by the end of the third week of class, and has been approved for an extension of time in which to pay the tuition.

It is the responsibility of the student to report to the Student Records and Financial Services Office to sign the note. Failure to do so at the required time will result in the assessment of a \$150 (US dollars) late fee and possible permanent cancellation of that student's registration and dismissal from school.

All tuition and fees owed by a student must be paid in full, by the end of the third week of each trimester or the student will be removed and unregistered from classes. Any student with a balance due at the time of graduation will not receive a diploma and

copies of official transcripts will be withheld until the balance is paid in full.

Tuition and fees are subject to change at any time. As a general rule, costs will be adjusted once a year to be in effect for fall, winter and summer terms of the entire academic year. New tuition and fee rates are announced in the summer prior to the beginning of the upcoming academic year. To find out current tuition and fees for all programs at Northwestern, go to <http://www.nwhealth.edu> and follow the Admissions links, or contact Student Records and Financial Services at (952/800) 888-4777, ext. 440.

AUDIT POLICY

Students may audit a class with the permission of the instructor and department, if space is available. Students who wish to audit a course should request audit status at registration. As an auditor, a student will pay current tuition and fees for the course. Auditors are subject to all course prerequisites and any other conditions established by the department or the instructor. The symbol AU will appear in the grade column of the student's transcript when all course conditions are met. Audited courses may not be used for credit, will not transfer to other colleges and do not meet the requirements for a degree. Financial aid is not available for audited courses.

This policy does not include students who are encouraged or required to audit a course for the purpose of remediation or mitigating academic deficiencies. Students who wish to audit a course for which transfer credit has previously been granted may submit a written request and explanation to the program dean for exemption from tuition. If approved, the student will be charged an administrative fee of \$100 per course in lieu of tuition. All other requirements apply.

WITHDRAWAL POLICY

The University recognizes that a decision to withdraw for any reason, financial or personal, is a difficult one. It is advisable for a student to share thoughts about potential withdrawal with their program office and the Office of Student Affairs as early as possible so that the University may offer counsel on different alternatives and the student may derive maximum benefit under the University's refund policy.

Students may officially withdraw from the University by personally informing the Registrar in writing of their intentions. The Registrar is located in the Registrar and Financial Aid Office area. The date of withdrawal will be noted as the date on which the student notifies the Registrar.

If, at the time of withdrawal, the student's payments for the trimester exceed the amount of liability, he or she will be entitled to a refund of the excess; if the student's payments are less than the liability, the balance will be due and payable as of that date.

Students withdrawing from the University will be considered in good standing, unless they have failed to clear up any probation notation on their record or failed to pay a tuition and fees liability. Students in good standing may reenter the University upon application for readmission. Students not in good academic standing may be required to complete conditions imposed by the Academic Standards Committee. Students not in good financial standing are required to clear their financial obligations prior to readmission.

RETURN OF TITLE IV FUNDS POLICY

The Return of Title IV Funds Policy applies to all students who have, or could have been, disbursed federal funds. In accordance with federal regulations, the institution and the student are required to return unearned portions of Title IV assistance (federal grants and/or federal student loans). This return of unearned funds only applies to students who have completely withdrawn. The return of funds is based upon the percentage of time the student was at the institution. The percentage of time completed is determined by dividing the number of days prior to complete withdrawal by the total days of the trimester. The earned percentage (rounded) is then subtracted from 100 percent, which then gives the unearned percentage.

The unearned percentage is then multiplied by the total disbursement of federal assistance, which calculates the total funds that need to be returned to

the federal government. This unearned amount is then evaluated by the institution (Financial Services Office and Accounting Office) to determine how much must be returned to the federal government. If a student withdraws after 60 percent of the trimester has been completed, no funds will be returned.

Return of Title IV funds to the federal government will be in the following order:

- Unsubsidized Stafford Loan;
- Subsidized Stafford Loan;
- Federal Perkins Loan;
- PLUS Loan;
- Federal PELL Grant; and
- Federal SEOG.

Failure of the student to repay the federal government could jeopardize the student's eligibility for future financial assistance at Northwestern and other institutions. Failure to repay the institution could jeopardize the student's eligibility to return to the school and/or receive official academic transcripts.

NOTE: Refunds may also be required for State of Minnesota financial aid programs. Return of Title IV funds calculations will be done first before Northwestern's Refund Policy.

NORTHWESTERN HEALTH SCIENCES UNIVERSITY REFUND POLICY

The Institutional Refund Policy applies to all continuing students (new students are subject to the refund policy except the tuition deposit). This Refund Policy takes into consideration the substantial financial commitment made by the University for the education of its students, including the employment of faculty, maintenance of laboratories, clinics, physical plant and administrative operations. These commitments are made in advance of each trimester and withdrawals leave vacancies to be filled until the next matriculation. Withdrawals will be calculated from the date on which the student officially withdraws, except in the instance of an incapacitating accident, illness or death.

- 100 percent of tuition charges will be refunded if the student withdraws on or before the first day of classes.
- 90 percent of tuition charges will be refunded if the student withdraws after the first day of class but before 10 percent (in time) of the enrollment period.

- 50 percent of tuition charges will be refunded if the student withdraws during the time between 10 percent (in time) and 25 percent (in time) of the enrollment period.
- 25 percent of tuition charges will be refunded if the student withdraws during the time between the end of the first 25 percent (in time) and the end of the first 50 percent (in time) of the enrollment period.
- No refund will be granted, if withdrawal is made after 50 percent of the enrollment period has passed.
- All percentages will be rounded.

Example: If an enrollment period is 102 days and a student withdraws on the 51st day (50 percent of the enrollment period), the student would get a 25 percent tuition refund. However, a student who withdraws on the 52nd day or later, would not receive a refund. When a student is entitled to a refund, the funds will be given to the student unless the institution has been required to return an unearned portion of Federal Title IV funds to the federal government. If the refund is more than that which is to be returned, then the student will be given the remaining portion. If the refund is less than that which is to be returned to the federal government, then the student will be billed for the difference (see "The Return of Title IV Funds Policy" in this section).

FINANCIAL AID PROGRAMS

Northwestern Health Sciences University provides a wide variety of financial aid programs to assist students in meeting their educational and cost of attendance needs. For those who qualify, financial aid is available through federal, state, institutional and private sources. Only students who have been accepted to Northwestern and have submitted their tuition deposit will be considered for financial aid assistance. After a tuition deposit has been paid, new students will be sent an up-to-date financial aid packet (timeline determined by the Financial Services Office; generally four months prior to the start of the trimester). Example: For new students starting in the fall term, packets may be sent out by May 15 and aid processed by Aug. 1. For more details, visit our web site at <http://www.nwhealth.edu> and follow the Financial Aid links.

For federal and state assistance, each student must, with their PIN number (from <http://www.pin.ed.gov>), complete the Free Application for Federal Student Aid (FAFSA) at <http://www.fafsa.ed.gov>. Students may also call (800) 433-3243 for further assistance

regarding the FAFSA. The Northwestern Health Sciences University school code is 012328.

All students are responsible for checking on the status of their financial aid to insure that funds are available at the start of a term. Northwestern follows federal, state, private and institutional policies and procedures. When funds have been posted to a student's Northwestern account, within three business days, tuition and fees will be deducted by the Accounting Office and the balance will be issued as a check within 14 calendar days. Students may pick up checks in the Human Resources Office. Checks may not be picked up prior to the first day of classes.

Listed below are all the Northwestern programs approved for federal assistance, as well as loan limits:

College of Chiropractic:

Federal graduate/health profession limits.

Master of Acupuncture and Master of Oriental Medicine:

Federal graduate limits.

School of Massage Therapy Certificate:

First-year, first-time federal undergraduate limits and State of Minnesota resources.

Undergraduate Studies Coursework (Pre-Professional) required to complete the dual degree of Doctor of Chiropractic and Bachelor of Science in Human Biology:

Federal undergraduate limits.

FINANCIAL AID ELIGIBILITY

Students may receive financial aid if they qualify for federal, state, private and institutional eligibility criteria. Students must be in good academic standing with the institution and meet qualitative and quantitative measurements. Some of the eligibility criteria are United States citizenship, not in default of loans, Social Security Administration match, Selective Service enrollment and credit rating (if applicable).

Students are eligible for financial aid during those terms in which they are enrolled at least half-time in credit hours, as determined by the Registrar's Office. There may be limited private loans if the student is enrolled below half-time credit hours.

ENROLLMENT STATUS DEFINITIONS

The enrollment status of Northwestern students is defined according to the credit loads shown in the following table:

Academic Program	Half-time credits	Three-quarter time credits	Full-time credits
College of Chiropractic Trimesters 1-9	7.5	11	15
Trimester 10	5	7.5	10
College of Acupuncture and Oriental Medicine	5	7	9
School of Massage Therapy	6	9	12
Undergraduate/ Preparatory	6	9	12

Financial assistance will be adjusted for each trimester of enrollment according to the student's enrollment status and the regulations that govern each program.

FINANCIAL AID AND SATISFACTORY ACADEMIC PROGRESS

The Higher Education Amendments that govern Title IV Financial Assistance Programs state that "a student shall be entitled to receive federal student assistance benefits only if that student is maintaining progress in the course of study he/she is pursuing, according to the standards and practices of the institution." Northwestern's Policy of Satisfactory Academic Progress requires a student to meet both a Scholastic Standard (qualitative-grade requirement) and a Program Standard (quantitative-work completed). Supportive services are available at Northwestern to help ensure scholastic success. Information about these services is available in the Student Counseling Center. An aid-recipient's Satisfactory Academic Progress will be monitored at the end of each grading period to establish the student's eligibility to continue receiving financial aid.

Satisfactory Academic Progress Policy for Receiving Financial Aid in Programs Offered at Northwestern:

Dual degree of Doctor of Chiropractic and BS Degree in Human Biology; Undergraduate Studies Course Work (Pre-Professional):

- Maintaining a minimum grade point average (GPA) on all work attempted or academic standing consistent with graduation requirements; that is, to be making satisfactory progress toward the Doctor of Chiropractic degree and the Bachelor of Science degree in Human Biology.

- Completing the minimum trimester status requirements for which assistance was received. Satisfactory progress is evaluated at the conclusion of each academic trimester.

Master of Acupuncture and Master of Oriental Medicine:

- Students must maintain a cumulative grade point average (GPA) of 2.00 (C) or better. Satisfactory progress is evaluated at the conclusion of each academic trimester.

School of Massage Therapy:

- Students must maintain a cumulative grade point average (GPA) of 2.00 (C) or better. Satisfactory progress is evaluated at the conclusion of each academic trimester.

- When you receive financial aid, you are subject to the 150 percent rule. This rule means that if you attempt more than 150 percent of the credit hours needed to graduate from the program, you will not be eligible to continue to receive financial aid. (For example, the number of credit hours needed to complete the certificate is 41.5 and 150 percent of 41.5 credits is 62.25 credits.)

FINANCIAL AID SUSPENSION AND APPEAL

Academic dismissal or financial aid suspension:

If the student has incurred an academic deficiency (probation or dismissal) of the trimester just completed, the student will be sent a letter that their student's financial aid will be placed on hold/suspension until the student's academic record has been reviewed.

How to appeal: The student may make an appeal of the academic dismissal to the Academic Standards Committee.

Waiver of financial aid suspension: Financial aid may only be reinstated when the student's regular status is granted by the Academic Standards Committee, confirmed by the Registrar and their financial aid file has been reviewed for eligibility.

FINANCIAL AID COUNSELING

Entrance and Exit Counseling are required for students who have or will obtain federal loans while attending Northwestern. Loan counseling is particularly important because new students often have little or no experience with repayment and managing their individual financial aid portfolio debt. Northwestern must conduct Entrance Counseling before releasing the first disbursement of Stafford

and Perkins Loans. The emphasis for Exit Counseling shifts to more specific information about loan repayment and debt management which includes Stafford and Perkins Loans. While a student is enrolled at Northwestern, they may access at any time information on their federal aid debt history at <http://www.nsls.ed.gov> and/or contact the Financial Aid Office.

FEDERAL STUDENT AID AT A GLANCE

Federal Student Financial Aid (SFA), <http://www.studentaid.ed.gov>, is assistance for students enrolled at least half-time in participating schools. It helps to cover school expenses, including tuition and fees, room and board, books and supplies, and transportation. Most aid is need-based and the three types of aid are grants, loans and work-study.

Federal Pell Grant (PELL)

The Federal PELL Grant is available to those eligible students who are considered undergraduate. For those students who are eligible, it should be the first form of financial aid investigated. In order to determine eligibility, the FAFSA must be completed. At a student's request, the processor will forward that information to the United States Department of Education which determines final eligibility. This should be done before applications for student loans are made. Federal PELL Grant amounts are determined by the federal government and certified by the Student Records and Financial Services Office.

Federal Supplemental Educational Opportunity Grants (FSEOG)

FSEOG is a campus-based award of federal gift money given to eligible undergraduate students. To qualify for this award, a student must be eligible for a Federal PELL Grant and still have additional financial need. United States federal guidelines and institutional policies determine amounts.

Other Federal Grants

The Academic Competitive Grant (ACG) and SMART Grant may also be reviewed for undergraduate students. Should funds be available, additional criteria and supportive documentation may be required.

Federal Perkins Loan

A Federal Perkins Loan is a low-interest loan for students with exceptional financial need (undergraduate or graduate). Eligibility for the Federal

Perkins Loan, as determined by the Financial Services Office, is considered when students apply for other forms of federal financial aid. The Financial Services Office, along with funding levels from the Department of Education, determines the standard Federal Perkins Loan amount awarded per academic year. Interest starts accumulating nine months after the student is no longer enrolled. Repayment is 12 months.

Federal Direct Loan Program (FDLP)

The FDLP program consists of the Subsidized Stafford, Unsubsidized Stafford, GRAD PLUS and/or PLUS Loans. The Federal Direct Loan Program was established to provide long-term, variable low-interest loans to eligible students in post-secondary education, while the student is attending school at least half-time.

Loans are generally processed every two trimesters. Using guidelines of the institution and the federal government, "reasonable" cost of attendance is determined for the student only. (All dollar amounts are given in US dollars.)

Graduate/Health Profession (Chiropractic):

Up to \$8,500 subsidized Stafford Loan (need-based); total (subsidized and unsubsidized) \$20,500. As a recognized health profession, up to \$12,500 in additional unsubsidized. Aggregate total is \$224,000 including undergraduate studies.

Graduate (Acupuncture and Oriental Medicine):

Up to \$8,500 subsidized Stafford Loan (need-based); total (subsidized and unsubsidized) \$20,500. Aggregate total is \$138,500 including undergraduate studies.

Undergraduate Studies Coursework (Pre-Professional) required to complete the dual degree of Doctor of Chiropractic and Bachelor of Science in Human Biology:

Federal undergraduate limits apply based on credits required to be accepted into the Doctor of Chiropractic Program as determined by the Admissions Office. To be eligible for federal students aid, academic transcripts, and a tuition deposit, are required to secure and declare your major. A consortium agreement may also be required.

Undergraduate (Massage Therapy):

First-year, first-time, undergraduate limits. Aggregate total is \$31,000 (dependent), \$57,500 (independent).

The amounts given are the maximum a student can borrow. Students cannot borrow more than the cost of education (refer to Federal Student Guide), as determined by Northwestern, minus any other financial aid.

Federal Parent PLUS and Federal Graduate PLUS Loan

Parent Loan for Undergraduate Students (PLUS):

At United States domestic schools, the parent may obtain additional loans for the dependent student, under-graduate student, based on the original Master Promissory Note (MPN) for up to 10 years after the parent first signed it.

Since the PLUS amounts the parent may borrow can be certified up to the student's cost of education minus other financial aid for the loan period, it is especially important that the parent specify the amount he/she wants to borrow. A PLUS loan may not be made for more than the parent requests.

To borrow a PLUS loan, the parent must not have adverse credit.

Graduate PLUS Loan:

For graduate and professional students only, students may borrow under PLUS program eligibility criteria and other federal guidelines.

Federal Work-Study (FWS)

This is a federally funded, campus-based work program that provides jobs on campus for financially eligible students to work up to an average of 20 hours per week. The University provides positions for students in the library, admissions, building maintenance and laboratory assistance, among others. To determine Federal Work Study eligibility, students must stop in the Student Records and Financial Services Office. All FWS funds are subject to IRS tax rules and regulations. The Human Resources Department determines wages.

Northwestern also participates in the community service program, which encourages students to be involved in community service activities. There are many opportunities, including community events, literacy or reading programs, clinic receptionists and more. Contact the Financial Services Office for more details.

Special Circumstances and Budget Adjustments

Students may contact the Financial Services Office for special circumstances (reduced income, etc) and/or budget adjustments (computer, board exams, required course work to complete a degree/certificate, day care, etc).

STUDENT ELIGIBILITY (DRUG CONVICTION)

Ineligibility resulting from drug conviction is limited to offenses that occurred while the student received Title IV assistance.

MINNESOTA HIGHER EDUCATION SERVICES OFFICE

Minnesota State Grant Program and Student Educational Fund Program (SELF):

The Minnesota State Grant Program provides undergraduate students with assistance in meeting the cost of attendance at eligible Minnesota public and private post-secondary institutions of their choice. In order to receive an award, the student must demonstrate financial need, be a Minnesota resident attending an eligible Minnesota institution, be making satisfactory academic progress, and meet any federal and state requirements.

The SELF loan program helps students who need assistance in paying for education beyond high school. To be eligible for the SELF program, a student must be either a:

- Minnesota resident who is enrolled at least half-time in a certificate, associate, bachelor or graduate degree program at an eligible school; or
- Non-Minnesota resident who is enrolled at least half-time in a certificate, associate, bachelor or graduate degree program at an eligible school located in Minnesota.

To be eligible for a SELF loan, the student must have a creditworthy cosigner and may not be delinquent or in default on a SELF or any other outstanding student loan. SELF loan counseling is also required.

The State of Minnesota also requires the completion of the FAFSA. More information and other resources available, go to <http://www.ohe.state.mn.us/>

ALTERNATIVE/PRIVATE LOAN PROGRAMS

There are alternative loans available. You may contact the Financial Services Office and or the school website for more information (financial aid links/preferred lender list).

SCHOLARSHIPS

Northwestern offers a wide variety of institutional aid including scholarships and endowments. Northwestern scholarships are awarded based on financial resources, academic performance, service/leadership involvement, trimester level, scholarship history and faculty/clinic recommenda-

tion. Funds from outside agencies may also be available.

Institutional scholarships and grants are intended to encourage geographical, cultural and socioeconomic diversity at Northwestern. Please note that the availability of funds is based on contributions, interest bearing accounts and institutional funding. Actual amounts may vary.

Students may contact the Financial Services Office for more information about scholarships.

REPAYMENT OPTIONS

There are many repayment options including Income Based Repayment (IBR) and Consolidation. Contact the servicer of your loans for further assistance or go to <http://www.nslds.ed.gov>.

CANADIAN AND INTERNATIONAL STUDENTS

For those who qualify, students may apply for Canadian and Provincial Loans, Northwestern International Scholarships and Canadian Tuition Reciprocity (if available). Private loans may be available based on credit rating, a United States citizen or permanent resident cosigner, or other limitations.

COHORT DEFAULT RATE

For information regarding the University's Title IV Cohort default rate, feel free to contact the Financial Services Office.

TUITION AND FEES

For information on tuition and fees, visit the Admissions section of our web site at <http://www.nwhealth.edu> or contact the Office of Admissions at (952/800) 888-4777, ext. 409.

MANAGING YOUR FINANCIAL AID

Student loan indebtedness can be burdensome. It is important to understand your loan status. To help manage your financial aid portfolio, you should:

- Apply only for the aid you need. Live like a student now so you don't have to later;
- Keep records of income, expenses and money borrowed;
- Complete all forms accurately and on time;

- Read everything sent to you by the lender, servicer and institution;
- Become familiar with repayment terms of the loans;
- Take advantage of the access to website locations;
- Note that there are no penalties for early payment on your loans;
- Go to <http://www.nslds.ed.gov> to locate your servicer.
- If you are able, make interest payments while in school.
- Do not default on your student loan(s) as there are serious consequences.

Frequently Requested Telephone Numbers

- General information about the federal student financial aid programs: (800) 433-3243.
- Free Application for Federal Student Aid (FAFSA on the Web) assistance: (800) 801-0576.
- Educational Computer Systems Incorporated for Perkins Accounts (888) 549-3274.

Useful Web Sites and Consumer Information

- United States Department of Education and Consumer Information:
<http://www.studentaid.ed.gov>
- Northwestern Health Sciences University:
<http://www.nwhealth.edu>
- Loan Consolidation, Calculators, Consumer Information: <http://www.mygreatlakes.com>
<http://www.finaidfacts.org>
- Completing the Direct Loan Master Promissory Note and Entrance Counseling:
<http://www.studentloans.gov>

For further details on any programs, contact the Student Records and Financial Services Office at (952/800) 888-4777, ext. 440.

Please note that financial aid awarding and related processing is subject to change.



Northwestern

Health Sciences University



Undergraduate Studies



College of Undergraduate Health Sciences

MISSION STATEMENT

The mission of Northwestern Health Sciences College of Undergraduate Health Sciences is to support the overall mission of the university by providing classes at the undergraduate level to students pursuing careers and professional opportunities in the health sciences field. The courses provided will support the professional programs at Northwestern by preparing students entering the programs through education, scholarly activity and research.

PROGRAM GOAL

Our goal to prepare students for advancement to professional health programs and careers will:

1. Provide students the fundamental knowledge within an evidence-based pre-professional curriculum and clinical educational environment;
2. Enhance student's abilities in researching scientific information and develop students ability to think critically and solve problems;
3. Prepare students to work cooperatively and collaboratively to increase student understanding of different cultures and points of view;
4. Develop communication skills;
5. Teach students to make informed and well reasoned ethical decisions;
6. Develop self awareness and enhance leadership skills.

Admission Information

Northwestern admits women and men of good character who are qualified by previous education and experience. Enrolling an academically qualified, diverse student body is essential to the Northwestern's mission. Applicants are considered for admission to Northwestern's College of Undergraduate Health Sciences through an open enrollment process.

Application Procedure

A complete application for admission to the College of Undergraduate Health Sciences must include:

1. \$50 non-refundable application fee
2. The application form filled out completely
3. The Immunization Record filled out completely
4. Official High School Transcript or GED transcript
5. Official College Transcripts (if applying for financial aid)

Application forms in pdf format can be found online at: <http://www.nwhealth.edu>. Admission to the College of Undergraduate Health Sciences is open enrollment. Students who follow the application procedure, submit all necessary documents to complete their admissions application file and meet the qualifications deemed necessary by Northwestern are admitted and can register for undergraduate courses.

Qualifications

As a student, you must also possess the following abilities, with or without reasonable accommodation, for completion of undergraduate courses:

1. Ability to perform in all laboratory and classroom settings without posing a threat to herself/himself, to the safety and well-being of fellow students;
2. Ability to work cohesively and harmoniously in a team of two or more students in the performance of required classroom and laboratory activities;
3. Ability to see and hear, with or without reasonable accommodation, in order to fulfill classroom and laboratory requirements.

Qualified persons with disabilities, with or without reasonable accommodation, must be able to pass oral, written and practical examinations, and meet all of the classroom and laboratory requirements of Northwestern.

It is in the best interests of both the student and Northwestern to assess the degree of limitation caused by disability. However, Northwestern will make the final determination of whether or not an individual meets all qualifications for study at Northwestern. Additionally, questions regarding qualifications or accommodations should be directed to the Office of Student Affairs.

Northwestern will deny admission to applicants who have been convicted of a misdemeanor of a violent or sexual nature or any felony. The University therefore reserves the right to conduct a criminal background check on applicants or on any enrolled student at any time in the program.

Minnesota Immunization Requirement

All students born in 1957 or later must comply with the Minnesota State College Immunization Law (Minn. Stat. 135A.14). An admitted student must show proof of DPT immunization within the past 10 years, as well as measles, mumps and rubella immunization after his/her first birthday. However, exemptions are permitted for philosophical or medical reasons.

Responsibility of Applicant

It is the responsibility of the applicant to be aware of the entrance requirements and ensure that those requirements are met prior to enrollment. If Northwestern determines at any time that requirements are not met in full, the student will not be allowed to enroll or to continue enrollment at Northwestern.

ACADEMIC POLICY

The following provides a summary of our Academic Policies. The official policies are found in the University Student Handbook, which is available online at <http://www.nwhealth.edu>. The University Student Handbook is updated more frequently than the University catalog. In all cases, the Academic Policies as stated in the current University Student Handbook will be followed.

Trimester Credits

The academic calendar includes fall, winter and summer trimesters of 15 weeks each. In general, one credit represents one lecture hour, two laboratory hours or two clinical hours per week.

Attendance Policy

Students are required to fulfill all course responsibilities, including class attendance, which are described by faculty in the course syllabus.

Academic Evaluation and Grades

Academic evaluation provides incentives to students, rewards achievement and identifies students who are having difficulty. Final grades in each subject are issued at the end of each trimester and reflect a student's performance in some combination of the following: comprehensive final examinations; announced tests, quizzes, assignments, classroom and laboratory work; participation in and contribution to class discussions;

and attendance. Class grades summarize student achievement levels relative to objectives explained by the instructor. Students who complete all the work assigned in a course are graded as follows: A, B, C, or D (excellent, above average, average or minimal achievement, respectively). Students who fail to achieve minimal competency are graded with F for failure. An incomplete (I) indicates that the full work of the course has not been completed because of illness or some cause beyond the student's control. Students in some classes may be assigned either an S for Satisfactory or a U for Unsatisfactory. The grades of S/U are not included in determining grade point average (GPA). The final grade of U (unsatisfactory) is considered to be a grade of failure in the course. The criteria for assignment of grades are contained in each course syllabus.

Academic Standing

Students must be in good academic standing to serve as Student Senate officers or as officers of approved student organizations. Students are considered in good academic standing when their cumulative grade point average is greater than 2.0 at the end of any trimester. Students are placed on academic probation when their grade point average is 2.0 or less at the end of any trimester. Students are automatically placed on probation if they earn a failure in any course. The University Student Handbook provides details pertaining to probation, dismissal, and review procedures.

Program Changes

Northwestern Health Sciences University reserves the right to change or discontinue academic programs at the University's discretion.

Curriculum

Northwestern offers four undergraduate level, pre-professional science course sequences. These courses are offered every trimester, three times per year, and are offered in an accelerated format. Classes include: General Biology 1 & 2, General Chemistry 1 & 2, Organic Chemistry 1 & 2, Physics 1 and Biomechanics. Most courses are offered in the late afternoon and evening hours to accommodate students who are working while in school. The courses provide a strong basic science foundation for students pursuing a health sciences graduate or professional school education or a health sciences career.

Additional Communications, Social Science and Humanities courses are offered.

UNDERGRADUATE STUDIES COURSE LIST:

Course Number	Title	Hours				
		Credits	Contact	Lecture	Lab	Clinic
PHYS2050	Biomechanics	3	45	45	0	0
DSIS2001	Directed Study in Sciences	1-4		Variable		0
ENGL1001	English Composition	3	45	45	0	0
ETHC1001	Ethics	3	45	45	0	0
BIOL2030	General Biology 1 with Human Emphasis	4	75	45	30	0
BIOL2040	General Biology 2 with Anatomy and Physiology Emphasis	4	75	45	30	0
CHEM2048	General Chemistry 1	4	75	45	30	0
CHEM2049	General Chemistry 2	4	75	45	30	0
PHYS2040	General Physics 1: Mechanics	4	75	45	30	0
PHYS2041	General Physics 2: Electricity and Magnetism	4	75	45	30	0
PSYC1001	General Psychology	3	45	45	0	0
ENGL1002	Human Communication	3	45	45	0	0
MATH0001	Math Review	1	15	15	0	0
CHEM2058	Organic Chemistry 1	4	75	45	30	0
CHEM2059	Organic Chemistry 2	4	75	45	30	0
SOC1001	Sociology	3	45	45	0	0

COURSE DESCRIPTIONS

PHYS2050 Biomechanics

3 credits

Prerequisite: General Physics 1 or equivalent

This is an introductory course on the resolution of forces involved in human movement. Includes principles of physics governing human motion (force of gravity, work, energy, laws of motion, etc), the application of force in relation to center of mass, displacement, velocity, acceleration, buoyancy and the analysis of movement.

DSIS2001 Directed Study in Sciences

1 to 4 credits

Prerequisite: To be determined by instructor

Instructor directed studies in specific topics of science and health science. Specifics of course to be developed between student, instructor and Director of Undergraduate Studies. Course work can include meetings with instructor, independent reading and research, online learning, lab work and participation in other activities. Student outputs in course can include papers, oral reports, proposals and/or exams. Outline of course will be completed by student and instructor at beginning of term to outline scope and goals.

ENGL1001 English Composition

3 credits

This course will focus on clear and effective writing, in preparation for a more intensive writing course (Human Communication). Books on grammar, syntax, and style, accessible to adults, will be reviewed. The focus will be on clarity and effectiveness in communicating with one's audience.

ETHC1001 Ethics

3 credits

The foundations of Greek and modern Euro-American ethical thinking are presented. Students apply values and assumptions to simple ethical problems and then to situations of ethical distress in a variety of health-related and general-life settings.

BIOL2030 General Biology 1 with Human Emphasis

4 credits

Prerequisite: One-year high school biology or equivalent

This course investigates basic principles of human and animal biology, including physiology, cell biology, biochemistry, energetics, genetics, evolution and ecology. Lab component will emphasize the use of methodologies typical of biological studies.

BIOL2040 General Biology 2 with Anatomy and Physiology Emphasis

4 credits

Prerequisite: General Biology 1 or equivalent

This course investigates principles of human biology, including detailed anatomy and physiology descriptions of the skeletal, muscular, circulatory, respiratory and other systems. Lab component will emphasize dissection and observation of organs.

CHEM2048 General Chemistry 1

4 credits

Prerequisite: One-year high school chemistry or equivalent

This course investigates the composition, phases and chemical reactions of matter. The course has a laboratory component.

CHEM2049 General Chemistry 2

4 credits

Prerequisite: General Chemistry 1 or equivalent

This course explores advanced concepts in chemistry. These include acid-base chemistry, kinetics, various aspects of equilibrium and thermodynamics. The course has a laboratory component.

PHYS2040 General Physics 1: Mechanics

4 credits

Prerequisite: One-year high school algebra or equivalent

Students learn the basic concepts of physics with an emphasis on areas that apply to understanding the human body. Topics include matter, energy, force, work, power, motion, electricity, light, heat, sound, magnetism and medical imaging. The course has a laboratory component.

PHYS2041 General Physics 2: Electricity and Magnetism

4 credits

This is the second in a two-course algebra-based general Physics sequence with lab with an emphasis on areas that apply to understanding the human body. The focus of this course is electromagnetic phenomenon including electricity, magnetism, waves, light and optics and also includes nuclear physics. Examples of electromagnetism in the human body and biomedical applications will be used. This course has a laboratory component.

PSYC1001 General Psychology

3 credits

This course provides a basic introduction to psychology. Topics discussed will include psycho-logical theories and clinical approaches to this science. Specific topics may also include historical foundations of psychology, physiological/biological psychology, developmental psychology, sensation and perception, learning theory, cognitive psychology, personality theories, abnormal psychology and health psychology.

ENGL1002 Human Communication

3 credits

This course is a continuation of English Composition, adding instruction and practice in oral presentation. The course will focus on challenging students to write and speak more effectively with their audiences. Some remediation is offered to those in need, but students will be expected to take responsibility for their work products. The course will require frequent composition of essays and technical descriptions, as well as a variety of oral presentations. Work products relevant to health care will be included.

MATH0001 Math Review

1 credit

The one-credit course provides a brief math review in order to serve as prerequisite or preparatory course for PHYS2040 General Physics 1.

CHEM2058 Organic Chemistry 1

4 credits

Prerequisite: General Chemistry 2 or equivalent

This course begins with a review of basic chemical concepts applied to organic molecules and then explores organic chemistry nomenclature, structural isomerism and stereochemistry. The laboratory component includes general lab techniques and understanding of basic laboratory concepts.

CHEM2059 Organic Chemistry 2

4 credits

Prerequisite: Organic Chemistry 1 or equivalent

This course focuses on the properties, reactions and synthesis of major organic functional groups. The laboratory component provides experience in synthesis, purification and instrumental analysis of organic molecules.

SOC1001 Sociology

3 credits

This course will guide the student through an introductory study of various elements of human interaction. Historical elements related to the development of social theories will be reviewed. This course will review the concepts of social stratification, class, race and ethnicity, gender, culture, and deviance as they are related to the study of sociology. The topics of science, medicine, and health care, as they relate to the study of sociology, will provide a focus to this course. Fundamental concepts related to methodology of sociology will be addressed.

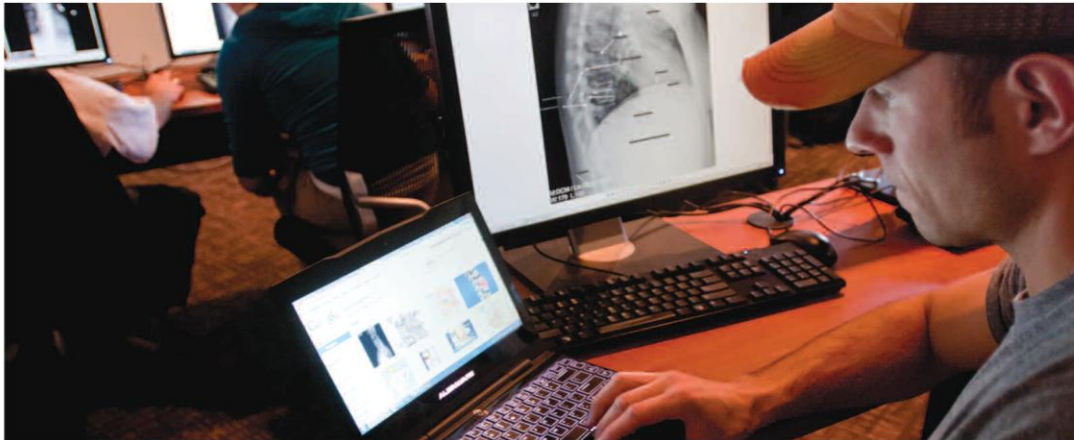


Northwestern

Health Sciences University



College of Chiropractic



College of Chiropractic

Strong Academic Education, Philosophy and Experience

With a rich and interesting history, the chiropractic profession and the doctors who practice this art and science have a unique view of health and disease and important perspectives that are reflected in the philosophy of the College of Chiropractic.

One meaning of philosophy is the love or pursuit of wisdom. Philosophy is not something that is taught or learned in any one particular course, lecture or laboratory. Rather, it is a process that evolves in unique ways for each individual.

We will provide a stimulating environment for thought, observation and experiences through which you will develop your philosophy of health care based upon strong chiropractic principles.

A fundamental principle embodied in the philosophy of chiropractic is the influence of the nervous system on the innate ability of the human body to be self-regulating and self-healing. This is reflected in the emphasis we place on the neuromusculoskeletal system and attention to the subluxation complex through the use of manual adjustment and manipulative and ancillary procedures.

We recognize the interconnections between body, mind, and spirit and the reality that the care we provide must be patient-centered and focuses on the whole person.

Our model of healthcare also embraces a responsibility to respond to both the patient's clinical problems and the promotion of optimal health.

As you pursue your professional education you will experience our philosophy that is the Doctors of Chiropractic:

- Are primary care healthcare providers – with a responsibility to conduct a comprehensive evaluation of the patient
- Are primary contact providers that patients can see without the need for a referral
- Are neuromusculoskeletal specialists who employ hands-on clinical case management
- Participate in collaborative, coordinated and integrative care with other health care professionals for optimal patient care
- Consider the whole person through the use of clinical approaches that focus on prevention of disease and maintaining a state of wellness
- Respect the historical foundations of the profession while embracing new knowledge and evidence informed practice

As a student, you will experience another philosophical principle that guides much of what we do. Simply stated, it's the value we place on critical thinking and an openness to different ways of viewing health and disease – and the practice of chiropractic.

ADMISSION INFORMATION

Admission to the College

Northwestern admits as students, men and women of good character, who are qualified by previous education and experience to meet its rigorous academic challenges and to become practicing doctors of chiropractic. New students are admitted at the beginning of each trimester of the academic year: September and January. Transfer students may also be admitted at those times, as well as in May. (See "Transfer Application" section.)

Applications for admission, as well as current tuition and fees, are available online at <http://www.nwhealth.edu> or may be obtained by contacting the Office of Admissions. The application for admission must be accompanied by a nonrefundable application processing fee of \$50 (US dollars). It is the responsibility of the applicant to read this catalog and comply with all provisions and instructions.

Persons who have been convicted of a misdemeanor of a violent or sexual nature or any felony will be prohibited from professional health care practice in many jurisdictions. Northwestern Health Sciences University will deny admission to applicants with such convictions. The University therefore reserves the right to conduct a criminal background check on all applicants and enrolled students.

Entrance Requirements

The following minimum requirements for admission apply to all candidates seeking admission to the College of Chiropractic and are consistent with the standards set forth by the Council on Chiropractic Education:

1. Applicants must have completed three academic years of college credit (90 semester credits or 135 quarter credits) acceptable toward a bachelor's degree (see required distribution below). Pre-chiropractic courses must be completed at a college or university accredited by a regional accrediting agency recognized by the United States Department of Education or an equivalent foreign institution. No more than 20 semester credits may be acquired through CLEP examinations or challenging of courses and only in courses other than required science courses. All science courses must be taken for letter grade.

2. Specific course distribution requirements and examples of acceptable courses are as follows:

<i>Subject</i>	<i>Minimum Semester Credits</i>	<i>Minimum Quarter Credits</i>
One academic year of Biology (with labs): Animal/Vertebrate General Biology/Zoology, Anatomy, Physiology, Microbiology	6	9
One academic year of General/Inorganic Chemistry (with labs): General Chemistry 1 and 2 or variations in course title (Principles of Chemistry, Inorganic Chemistry, Introductory Chemistry)	6	9
One academic year of Organic Chemistry (with labs): First semester in the Organic Chemistry sequence (Organic 1). The second trimester may be completed by taking Organic Chemistry 2 or Biochemistry with lab. You will need a minimum of six semester credits. Most students will attain eight to 10 semester credits after taking both lectures and labs.	6	9
One academic year of Physics/Quantitative Sciences/Biomechanics (with lab): First semester in an algebra/trigonometry-based General Physics sequence (General Physics 1). Second semester can be completed by taking General Physics 2 or by one of the following courses: Inferential Statistics (from a math or statistics department), Biomechanics, Kinesiology, or Exercise Physiology for majors. The second semester must be taken for a minimum of three semester credits.	6	9
Psychology General Psychology, Principles of Psychology, or Introductory Psychology	3	4.5
English, Literature or Speech Composition is strongly recommended. English, Literature or Speech courses are acceptable. Drama, Mass Communications, Theater and Journalism may not be used to meet this distribution requirement.	6	9
Humanities or Social Sciences Philosophy, Religion, General Humanities, Art History, Music History, Psychology, Sociology, Anthropology, History, Political Science or Economics courses are acceptable. Business courses and studio courses in art or music may not be used to meet this distribution requirement.	15	22.5

<i>Subject</i>	<i>Minimum Semester Credits</i>	<i>Minimum Quarter Credits</i>
Electives	42	63
Recommendations for elective courses include Human Anatomy, General Physiology, Cell Biology, Cell Physiology, Immunology, Genetics, Macroeconomics, Marketing, Small Business Management, Public Speaking, Technical Writing, and Medical Terminology.		
TOTAL	90	135

Only courses completed with a grade of C or better (2.0 on a 4.0 scale) will be accepted. A grade of C- is not acceptable if the awarding college states that the numerical equivalent is less than 2.0. All coursework must be applicable to bachelor's degree requirements in a regionally accredited undergraduate institution; remedial or developmental courses will not be accepted.

As indicated in the table of course requirements, Northwestern requires that students complete one academic year in each distribution within the natural and physical sciences. In other words, students will complete two semesters or three quarters in sequence. Science courses must be taken in the logical sequence – for example, General Chemistry 1 must be taken before General Chemistry 2. In most cases, students will complete 8 to 10 semester credits (12 to 15 quarter credits) in each distribution during a one-year sequence. All science courses should be foundation courses designed for science majors. Survey courses intended for non-science majors will not be accepted.

- Applicants must have earned a cumulative grade point average (GPA) of at least 2.5 and a science GPA of at least 2.0. All course work is counted toward the cumulative GPA and all science courses are included for the science GPA, not just selected course work. Applicants should realize that these are minimum grade points. To ensure acceptance, a more competitive grade point is desirable.
- For prospective chiropractic students who are interested in completing their undergraduate science prerequisites, Northwestern offers courses through Undergraduate Studies. Several of the courses are offered in an accelerated format which allows students to complete a full-year of courses in only one trimester (15 weeks). Priority for enrolling in these courses is given to students who have already applied to Northwestern Health Sciences University.

Qualifications

A student must possess the following abilities, with or without reasonable accommodation, for completion of the Doctor of Chiropractic degree program:

- Ability to use both upper extremities in the performance of common chiropractic procedures and techniques, including but not limited to: positioning patients, palpating, feeling with hands, pushing, pulling, thrusting with hands and wrists, grasping, and lifting up to 10 pounds;
- Ability to perform in all laboratory and clinical settings without posing a threat to herself/himself, to the safety and well-being of fellow students or patients;
- Ability to determine depth and intensity of manual pressure and force, as applied in the performance of common chiropractic and adjunctive procedures and techniques;
- Ability to see and hear, with or without reasonable accommodation, sufficient that the student can identify histologic, cytologic, microbiologic and pathologic structures through a microscope; receive and record patient histories; provide instructions to patients; provide routine patient safety services; perform stethoscopic and other auscultatory examinations; and read and interpret all forms of diagnostic imaging;
- Ability and willingness to receive chiropractic and adjunctive treatment. Much of the technical instruction in the programs requires reciprocal application of chiropractic and adjunctive techniques. In reciprocal laboratory experiences, receiving techniques is necessary in order to learn proper procedures, and to receive and provide learning feedback. Reciprocal application of technique is also useful for developing sensitivity to client needs. The College may temporarily excuse a student from receiving chiropractic treatment provided that there is a specific medical contraindication, as determined in writing by a licensed health care professional.

All students, with or without reasonable accommodation, must carry out laboratory assignments, including microscopic work and X-ray interpretation. Qualified persons with disabilities, with or without reasonable accommodation, must be able to pass oral, written and practical examinations, and meet all of the clinical requirements of the University.

It is in the best interests of both the student and the University to assess the degree of limitation caused by disability. However, the University will make the final determination of whether or not an individual

meets all qualifications for study at the University. The University accommodations process is found under "Student Life." Additionally, questions regarding qualifications or accommodations should be directed to the Office of Student Affairs.

Responsibility of Applicant

It is the responsibility of the applicant to be aware of the entrance requirements and to ensure that they are met prior to enrollment. If the College determines at any time that requirements are not met in full, the student will not be allowed to enroll or to continue at Northwestern. The Office of Admissions personnel are available to help prospective students plan their pre-chiropractic curricula.

Minnesota Immunization Requirement

All students born in 1957 or later must comply with the Minnesota State College Immunization Law (Minn. Stat. 135A.14). An admitted student must show proof of DPT immunization within the past 10 years, as well as measles, mumps and rubella immunization after his/her first birthday. However, exemptions are permitted for philosophical or medical reasons. Further information is included with letters of acceptance to Northwestern.

Some clinical environments outside the University Clinic system may establish immunization and/or health screening requirements exceeding the Minnesota State College Immunization Law. In addition, some clinical environments outside the University Clinic system may not accept placement of interns who have not received or are not in the process of receiving certain immunizations and/or health screenings.

Application Procedure

The first step in the application process is to submit a fully completed application for admission. Applications are available online at <http://www.nwhealth.edu> or from the Office of Admissions. The application must include:

1. A properly completed application for admission. Please type or print neatly;
2. An application processing fee of \$50 (US dollars). This fee is non-refundable;
3. Official transcripts from all colleges attended sent directly to the Office of Admissions at Northwestern Health Sciences University from those colleges. High school transcripts are not required. NOTE: Indicate on your application if your transcripts will be arriving under another name;

4. Three completed character reference forms. References should be people who have known you for a period of at least six months. References from professors and doctors of chiropractic are preferred. Relatives are not accepted as references. Northwestern will send character reference forms to those references listed on the application who should complete the form and return it to the University;
5. A completed essay (see application form for instructions).

Selection of Candidates

The Admissions Committee, in general, seeks to matriculate students who best suit the philosophies and goals of the program, which include providing an education in the scholarly and humane aspects of chiropractic, and fostering the development of leaders who will advance chiropractic practice and knowledge. Northwestern seeks to select students who have strong academic records and who demonstrate the motivational and personal characteristics suitable for a career in chiropractic. Willingness to provide service and a caring attitude are important characteristics of the future doctor of chiropractic. The University employs a rolling admissions process. Therefore, early application could increase the applicant's probability for acceptance. Students are strongly encouraged to apply at least nine to 12 months prior to the first day of their first academic term.

In recent years, applicants granted admission have had an average grade point average (GPA) of about 3.0 (A = 4.0). The University encourages campus visits for all applicants and reserves the right to require an interview.

Tuition Deposit Policy

Applicants will be notified in writing of the Admission Committee's decision regarding their application following receipt of all application materials and committee review. Upon notification of acceptance, a candidate must remit a tuition deposit of \$300 (US dollars) to reserve a position in the entering class. This tuition deposit is non-refundable but is applied toward the first trimester tuition. The tuition deposit should be submitted shortly after notification of acceptance since processing of financial aid is initiated only after receipt of the tuition deposit. First trimester students who have been accepted and paid their \$300 tuition deposit must pay the balance of their first trimester tuition on the first day of class. If the student has a Stafford Loan in progress for the first trimester at Northwestern, then the first trimester

tuition will be credited against this loan. It is important to note that because of the limited space available in each class, scheduling priorities and the cost of education, the institutional refund policy does not apply to the \$300 tuition deposit.

Transfer Students

A student wishing to transfer from another chiropractic college must:

1. Follow the same application procedures as a new student (see previous section in catalog);
2. Forward all official transcripts from any other chiropractic institutions you have attended;
3. Submit two letters of recommendation written by faculty members from the chiropractic institution(s) you attended;
4. Provide a letter from the registrar at that chiropractic institution indicating you are in good academic standing and could continue studies at that institution;

Transfer Policy

The institution where you completed your transfer coursework must be accredited and recognized by the Council on Chiropractic Education (CCE) and the U.S. Department of Education.

You will not be allowed to transfer to Northwestern if you are on academic probation or have any other academic restrictions.

Courses may transfer to Northwestern if you have received grades of C or better. Transfer courses must have similar course content, name, length or objective, and correspond to courses within our chiropractic curriculum. The registrar at Northwestern Health Sciences University will determine comparability.

All courses submitted to transfer must be applied for and posted to your Northwestern academic record prior to your enrollment.

A transfer student must complete a minimum of five trimesters of resident study at Northwestern prior to graduation.

Excessive student loan debt may be a factor in the student's ability to transfer. The Student Records and Financial Services Office will set upper limits of previous indebtedness.

Transfer policies are subject to change. Contact the Office of Admissions for current information.

Advanced Placement

Advanced placement gives a student credit for a Northwestern course based on work completed before matriculation at Northwestern Health Sciences University. Advanced placement also requires completion of a competency examination written by the faculty and provided by the chairperson of the appropriate department.

Applicants may sit for competency examinations if their official transcripts show:

1. Work in the subject area in addition to that required for admission and taken in upper-division courses;
2. Coursework completed with a grade of C or better;
3. Coursework taken within a period of five years;
4. A request to take the examination filed no later than two weeks before entering Northwestern.

Unless otherwise announced, examinations will be given the Friday before the first day of classes. This is the one and only chance to apply for advanced placement. Credit cannot be granted for any clinical-level courses taken in a college of liberal arts and sciences.

Transfer students from accredited chiropractic, osteopathic or medical colleges are given transfer credit and actual contact hours up to those equivalent to Northwestern standards. Advanced placement is not granted for only one part of two-part basic science courses such as Physiology I and II (see Trimester 2 and Trimester 3 in the course list section). Questions about advanced placement should be directed to the Office of Admissions.

Non-Program Students

Students not currently admitted to a program may enroll in a course for credit, if they meet the prerequisites, space is available, and approval for attendance in the course has been granted by the course instructor and the program administrator.

Students that are granted approval to enroll in a course should contact the Office of Admissions for a special application and registration instructions.

International Students

Northwestern Health Sciences University welcomes the diversity that international students bring to the University community. The University is a non-residential campus. Therefore, no housing is available to students, foreign or otherwise. Individuals in F-1 student status are not eligible to seek employment off campus. All classes at Northwestern are taught in English

Matriculants from foreign countries must meet the same educational requirements as students matriculating from the United States. The student should note the entrance requirement and application procedure sections. The student must also fulfill the following:

1. Follow the same application procedures as a new student (see previous section in catalog);
2. Verify competency in English. All classes at Northwestern are taught in English.

A student may verify competency in English in the following manner:

- a. Students from English-speaking countries (excluding the Canadian province of Quebec) may include with their application a copy of their birth certificate. Or these applicants may complete an English Competency Verification Form, which can be obtained from the Office of Admissions.
- b. All other foreign applicants (including students from the Canadian province of Quebec) must complete a TOEFL® (Test of English as a Foreign Language™) examination. Applicants completing the paper-based examination must earn a score of 540 or higher. Applicants completing the computer-based examination must earn a score of 83 or higher. Results of the TOEFL® must be sent directly to Northwestern from the testing agency. TOEFL information can be obtained from: TOEFL Services, Educational Testing Services, CN 6154, Princeton, NJ 08541-6154, USA

We reserve the right to request proof of English proficiency of any applicant.

3. Provide evidence of having financial resources to complete a minimum of one year of education. Official bank statements indicating sufficient funds are required;

4. Have foreign transcripts evaluated by WES: World Education Services, Inc., PO Box 5087, Bowling Green Station, New York, NY 10274, USA; phone: (212) 966-6311. Official copies of the course-by-course evaluation must be forwarded directly to both Northwestern and the student. Contact the Office of Admissions for a WES application form or names of other accepted transcript evaluation services.

As an international student, you must be aware of the licensure requirements in the country in which you wish to practice. We recommend you contact the chiropractic licensing board in your country for that information.

Educational Requirements of Non-US Citizens

The programs listed below are recognized as being equivalent to the pre-professional requirements of the CCE-USA. If you have successfully completed one of these programs, this may fulfill the entrance requirements to the College of Chiropractic. However, students who have completed these programs should contact the Office of Admissions for the most current information.

1. The French Propedeutique
2. The Danish Matematisk Studentereksamen
3. Odense University Pre-chiropractic Program
4. The Swiss Matura and First Medical Propedeutical or qualifying report
5. The Richmond College of London Pre-chiropractic Program
6. College d'enseignement general et Professional or its Canadian English equivalent.

For students from Mexico, a special schedule of courses has been developed which supplements the Bachillerato Preparatoria as the prerequisite for entry into the College of Chiropractic. Students from Mexico should contact the Office of Admissions for the most current information.

Northwestern reserves the right to request a transcript review by an evaluation service for any courses completed outside of the United States.

BACHELOR OF SCIENCE IN HUMAN BIOLOGY DEGREE COMPLETION PROGRAM

The Bachelor of Science in Human Biology (BS) is a degree completion program for students enrolled in the College of Chiropractic. The BS in Human Biology degree completion program is designed to allow eligible students to complete the course requirements for a BS in Human Biology while earning their Doctor of Chiropractic. Chiropractic students who have not yet earned a bachelor's degree are encouraged to apply. In addition, chiropractic students who have a bachelor's degree are eligible to earn a second bachelor's degree.

Statement of Purpose

There are both professional and practical reasons to complete your BS in Human Biology. In addition to the thorough grounding in the biological sciences that is offered by courses taken in the first five trimesters of the Doctor of Chiropractic program, the BS in Human Biology degree completion program offers these benefits:

- Professionally, you will develop your oral and written communication skills, your understanding of the philosophical foundations for the scientific method, your appreciation of health care ethics and your understanding of health care research.
- Having a bachelor's degree will generally increase your credibility if you serve as an expert witness, should you be called to testify in court.
- An increasing number of states require a bachelor's degree for chiropractic licensure, and some managed care organizations show a preference for chiropractors with a bachelor's degree when making network inclusion decisions.
- In general, a bachelor's degree increases your professional credentials and provides you the opportunity to excel in your chiropractic practice.
- This BS in Human Biology will help with meeting licensure procedures in states that require a bachelor's degree prior to obtaining a license to practice. Some state licensing boards may require additional education upon beginning a chiropractic program. For more information, please consult with the Federation of Chiropractic Licensing Boards at www.FCLB.org.

Course Requirements and Curriculum Overview

The BS in Human Biology is awarded to students who have earned the required academic credit in three areas:

1. Pre-professional entrance requirements for the Doctor of Chiropractic program (90 semester credits);
2. Biology concentration courses taken during Trimesters 1 through 5 of the Doctor of Chiropractic program at Northwestern (Section A);
3. BS in Human Biology degree completion sequence (four courses) offered one course per trimester in Trimesters 6 through 9 at Northwestern (Section B).

Section A: Biology Concentration

Courses taken in the Doctor of Chiropractic program:

Trimester 1:

- 11010 Biochemistry 1 (5 credits)
- 13010 Gross Anatomy 1 (5.5 credits)
- 15010 Histology 1 (3.75 credits)

Trimester 2:

- 11330 Biochemistry 2 (2 credits)
- 14220 Embryology (2 credits)
- 13120 Gross Anatomy 2 (5.5 credits)
- 15120 Histology 2 (3.5 credits)
- 12120 Neuroscience 1: PNS (4 credits)
- 11120 Physiology 1 (4.5 credits)

Trimester 3:

- 32050 Foundations of Evidence-Informed Practice (2 credits)
- 12230 Neuroscience 2: CNS (3 credits)
- 17030 Pathology 1 (3 credits)
- 11230 Physiology 2 (4.5 credits)

Trimester 4:

- 16140 Immunology and Clinical Microbiology (3.5 credits)
- 17140 Pathology 2 (3 credits)

Trimester 5:

- 36350 Clinical Nutrition 1 (4 credits)
- 25150 Infectious Diseases (2 credits)
- 25250 Public and Preventive Health (2 credits)

Total: 62.75 credits

Section B: BS in Human Biology Degree Completion Sequence

Four courses unique to the BS in Human Biology degree completion program:

Trimester 6:

UGE3710 Communication Skills (3 credits)

Trimester 7:

UGE3720 Philosophy of Science (3 credits)

Trimester 8:

UGE3730 Ethical Foundations (3 credits)

Trimester 9:

UGE3740 Understanding and Using Research (3 credits)

Total: 12 credits

Admission Requirements

1. Completion of pre-chiropractic entrance requirements (60 of the required 90 semester credits will be counted toward the BS in Human Biology);
2. Cumulative GPA of 2.0 or better for courses listed in Section A;
3. Passing grades in each course listed in Section A.

Entrance Requirements

Distribution of the 60 semester credits which will apply to the BS in Human Biology:

1. Humanities and Social Sciences:	24 credits
A. English, Literature or Speech	6
B. Humanities or Social Sciences	15
C. Psychology	3
2. Natural and Physical Sciences:	24 credits
A. Biology (with lab)	6
B. General/Inorganic Chemistry (with lab)	6
C. Organic Chemistry 1 (with lab) and Organic Chemistry 2 (with lab) or Biochemistry (with lab)	6
D. Physics 1 (with lab) (and Physics 2, Biomechanics, Exercise Physiology, Kinesiology, or Inferential Statistics (from a math or statistics department)	6
3. General Education Electives:	12 credits

NOTE: There are an additional six semester credits which are required for acceptance into the BS in Human Biology degree completion program which are above the prerequisite requirements for entrance into the Doctor of Chiropractic program.

For more information or to review your eligibility for the BS in Human Biology degree completion program, contact the Student Records and Financial Services Office.

Graduation Requirements

1. Cumulative GPA of 2.0 or better for courses listed in Section A;
2. Passing grade of C or better in each course listed in Section B.

PROGRAM CHANGES

Northwestern Health Sciences University reserves the right to change or discontinue academic programs at the University's discretion.

BS IN HUMAN BIOLOGY DEGREE COMPLETION SEQUENCE

Four courses unique to the BS in Human Biology degree completion program:

UGE3710 Communications Skills 3 credits

Knowledge and skills for personal and professional communication. Students continue working to develop such clinical-practice-related written products as patient referral letters, clinic and educational pamphlets, press releases, cover letters, curriculum vitae, and letters to editors. Each student develops and gives an oral presentation including slides on a randomly-assigned general topic and an audience type. All class slide presentations, often 20-30 talks, are then solicited from students in the class for their colleagues' use as they begin marketing their practices.

UGE3720 Philosophy of Science 3 credits

Introduction to scientific reasoning. Students are introduced to the skill of scientific critical thinking in everyday life, much as the scientist uses critical thinking to develop valid and reliable knowledge. Students practice the language of reasoning, and they identify and evaluate assumptions and statements presented as fact. Students evaluate patterns of reasoning and assess the credibility of causal inferences.

UGE3730 Ethical Foundations 3 credits

Emphasis is on morality and actively engaging in the practice of "doing ethics" in everyday life. Students identify and practice resolving generalize "ethical distress" and specific ethical dilemmas. Students review ethical theories and problem-solving methods used in personal and professional life.

UGE3740 Understanding and Using Research 3 credits

A continuation of Foundations of Evidence-Informed Practice. Students identify an area of interest, locate ten or more articles from the peer-reviewed scientific literature and appraise and summarize them. Course materials include a format for appraising both original reports and systematic reviews. Students develop reviews of research that can be used as doctors' clinical summaries and as patients' health education abstracts. Class projects promote students' skills in appraising and summarizing research and in generating useful research questions and research designs.

CLINICAL EXPERIENCE

A diverse array of clinical opportunities is available for Northwestern chiropractic interns. Students participate in these clinical experiences starting in Trimester 6 and extending through graduation. These educational programs demonstrate the University's commitment to clinical excellence and preparedness for professional success.

University Health Services

Student interns prepare to enter fee-for-service clinic settings by first providing care to Northwestern students, employees and their families in University Health Services, which is located in the J. Lamoine De Rusha Clinical Education Center. In the sixth trimester, interns complete a structured laboratory experience in which they refine their skills by interviewing, examining and providing chiropractic care to early trimester students. During this initial phase, students review, practice and discuss all elements of the clinical process in laboratory, lecture and small group discussion settings.

Northwestern's Natural Care Centers and Community Based Internship

In the seventh through ninth trimesters, students intern under the supervision of a faculty clinician at the University Health Services, fee-for-service Natural Care Centers of the University or the Community Based Internship (CBI) program. Northwestern's internships provide students with rich clinical experiences, contact with diverse patient populations and opportunities to build business skills. In each setting, a small student-to-faculty ratio results in a close relationship between the clinical mentor and the intern.

The Natural Care Centers are located in the Twin Cities metropolitan area. The Bloomington Natural Care Center is located on the University campus and the Natural Care Center at Woodwinds is located on a hospital campus. The Natural Care Centers feature a variety of patient services, including chiropractic, massage therapy, acupuncture, Oriental medicine, healing touch, naturopathy and advanced practice nursing services.

The Community Based Internship Program, a Northwestern innovation, is another opportunity available to students in the seventh through tenth trimesters. Students who serve their internship in the CBI program are placed in the private practice of a doctor of chiropractic who participates with the University in clinical education. Approximately 125 doctors in Minnesota meet the rigorous internship

standards to mentor chiropractic students from Northwestern during their internship experience.

Clinical Rotations

The promotion of integrated and collaborative natural and conventional medical care is a unique objective of Northwestern. As a complement to their primary clinical experience, students observe the clinical practices of chiropractors and other health care professionals such as neurologists, orthopedic surgeons, dentists, radiologists, massage therapists and Oriental medicine practitioners. Through participation in this program, students come to better understand the rationale for different approaches to care, are exposed to a wider range of patient conditions, understand the means for patient management through consultations and referrals, and have the opportunity to network with specialists. Additionally, Northwestern has established clinics at St. Agnes Schools in Saint Paul, Pillsbury House in South Minneapolis and downtown at the Salvation Army's Minneapolis Harbor Light Center. Students, under faculty supervision, provide free care to diverse patients in these communities.

Preceptorship Program

Tenth trimester students who have completed all the clinical requirements of the University and the Council on Chiropractic Education have the option of completing their training with doctors of chiropractic practicing in more than 30 states and many foreign countries. This program provides an opportunity for final-term students to begin the transition to private practice.

ACADEMIC POLICY

The following provides a summary of our Academic Policies. The official policies are found in the University Student Handbook, which is available online at <http://www.nwhealth.edu>. The University Student Handbook is updated more frequently than the University catalog. In all cases, the Academic Policies as stated in the current University Student Handbook will be followed.

Trimester Credits

The academic calendar includes fall, winter and summer trimesters of 15 weeks each. In general, one credit represents one lecture hour, two laboratory hours or two clinical hours per week.

Attendance Policy

Students are required to fulfill all course responsibilities, including class attendance, which are described by faculty in the course syllabus.

Academic Evaluation and Grades

Academic evaluation provides incentives to students, rewards achievement and identifies students who are having difficulty. Final grades in each subject are issued at the end of each trimester and reflect a student's performance in some combination of the following: comprehensive final examinations; announced tests, quizzes, assignments, classroom and laboratory work; participation in and contribution to class discussions; and attendance. Class grades summarize student achievement levels relative to objectives explained by the instructor.

Students who complete all the work assigned in a course are graded as follows: A, B, C, or D (excellent, above average, average or minimal achievement, respectively). Honor grade points (for calculating grade point averages) are awarded on the scale starting with four points for an A and one point for a D. Students who fail to achieve minimal competency are graded with F for failure. An incomplete (I) indicates that the full work of the course has not been completed because of illness or some cause beyond the student's control. The exceptions are assigned either an S for Satisfactory or a U for Unsatisfactory. The criteria for assignment of grades are contained in each course syllabus. The grades of S/U are not included in determining grade point average (GPA). The final grade of U (Unsatisfactory) is considered to be a grade of failure in the course.

Academic Honors

Students receiving a grade point average (GPA) of 3.50 or better are placed on the Dean's List. Academic honors are determined according to the following grade point levels:

<u>Honor</u>	<u>GPA Range</u>
Cum laude	3.50 – 3.69
Magna cum laude	3.70 – 3.89
Summa cum laude	3.90 – 4.00

Academic Standing

Students are considered in good academic standing unless they are dismissed or enrolled as a Special Student. Students must be in good academic standing to serve as Student Senate officers or as officers of approved student organizations. Students in good academic standing may progress toward degree completion.

Regulations Concerning Probationary Status

Students are placed on probation when their grade point average is less than 2.0 at the end of any trimester. Students are automatically placed on probation if they earn a failure in any course. The University Student Handbook provides details pertaining to probation, dismissal, review procedures and special student status.

GRADUATION

Graduation Requirements

The Doctor of Chiropractic degree is granted to those candidates who have:

1. Completed the required course of study, of which the past five terms have been in residence at Northwestern Health Sciences University;
2. Demonstrated competency in clinic and completed internship and field experience requirements;
3. Earned a cumulative grade point average (GPA) of 2.0 or better;
4. Fulfilled all financial obligations to the University;
5. Recommended for graduation by the faculty.

Graduation Rate

The average five-year graduation rate for cohorts matriculating between the Fall of 2003 and the Summer of 2005 is 90 percent.

LICENSURE

Successful completion of a Doctor of Chiropractic degree, or its equivalent, is a minimum eligibility requirement for examination before the licensing boards in all 50 states and the District of Columbia, and all foreign countries that license chiropractic practitioners. Some jurisdictions may impose requirements for licensure in addition to a Doctor of Chiropractic degree. Professional licensure requirements vary by jurisdiction. Students should not rely upon staff descriptions or statements regarding licensure requirements and need to consult directly with the licensure board for the profession and in the state or province in which they intend to practice. Information regarding licensure policies and requirements may be found in the Office of Alumni, Development and Career Services or in the Greenawalt Library.

Receipt of a degree from Northwestern Health Sciences University does not guarantee a license or certification to practice. States vary in the specific courses of study required and/or state-based testing for certification or licensing. Students are responsible for confirming with the appropriate board(s) to determine the specific requirements for the state(s) in which they intend to practice and/or seek employment.

COLLEGE OF CHIROPRACTIC

Curriculum Overview

The Doctor of Chiropractic curriculum at Northwestern consists of the equivalent of five academic years completed over three and one-third calendar years. The first three years of courses each consist of three 15-week trimesters (except Trimesters 8 and 9 which are 17 weeks) and the final year consists of Trimester 10, which is 17 weeks. The earliest trimesters consist of a strong foundation of basic sciences which are integrated with introductory chiropractic and clinical courses. These courses lay the groundwork for further study in the clinical sciences, as well as clinical experiences. A 12-month public clinic internship and preceptorship constitute the last three trimesters. Northwestern offers three trimesters: fall, winter and summer.

Students begin learning “hands-on” chiropractic techniques beginning in their first trimester and progress to supervised in-class adjusting in Trimester 3. Chiropractic therapies that are taught are broad-based, but stress those adjusting and manipulative procedures that have been proven most effective and which are consistent with biomechanical and physiological principles.

These adjusting skills are complemented by related therapeutics such as physiological therapeutics, nutrition counseling, exercise training, rehabilitation and mobilization procedures. Students learn to educate patients regarding healthy living practices, encouraging a holistic view of both mental and physical well-being.

Graduates of Northwestern are prepared to practice as first-contact, primary care chiropractic physicians, able to take responsibility for the health of patients. The diagnostic acumen and therapeutic skill sets required for primary care clinicians requires a strong background in the basic sciences, as well as current and relevant studies in the clinical sciences. Critical thinking and clinical decision-making skills must be developed in order to make the most appropriate patient-centered health care decisions.

Northwestern students are trained to work in cooperation with all other health care providers. To facilitate such interdisciplinary practices, a network of physicians has been established with whom the clinics interact. Opportunities are also available for interns to spend time as observers within a variety of clinical settings, including local medical practices.

Course Load

The breadth, depth and scope of courses and resulting study load in each term of the curriculum at Northwestern is similar to that in other health care professional schools in its academic rigor. As a result, students should expect substantially heavier loads at Northwestern than at colleges where they completed their pre-chiropractic studies. Those entering or continuing students who wish to modify their course load may benefit from split-schedule registration. A student may request split-schedule information from the Office of the Registrar. Use of a split schedule of courses may add some time and expense to the completion of the academic program.

All students are considered full-time unless classified otherwise by the Academic Standards Committee or by special arrangement through the Office of Student Affairs. Due to the nature of the chiropractic program of study, all students are expected to maintain continuous enrollment. However, in the event that a student requires a term off due to unforeseen circumstances, upon request by the student, the University will consider a leave of absence.

Course Sequence

The Doctor of Chiropractic program consists of seven 15 week and three 17 week trimesters, typically completed in three and a half years. The curriculum is designed to develop evidence informed, portal-of-entry chiropractic physicians who are prepared to practice in collaboration with other health care providers and in various practice environments.

Trimesters 1 and 2 emphasize the basic sciences and introduce you to chiropractic principles and methods, as well as radiology and business foundations. Beginning in the first trimester you will participate in clinical observations. In Trimesters 3, 4, and 5 you will complete the basic science sequence and progress into the clinical sciences, including diagnosis and radiology. At the same time, you will progress through your clerkship experience in trimesters 4 through 6 in the DeRusha Clinical Education Center.

In Trimesters 7 through 10 you will participate as an intern in our university owned clinics or a private practice affiliated with the College of Chiropractic.

Curriculum Organization

The doctor of chiropractic curriculum is comprised of 84 course offerings, organized by eight academic and clinical departments. The sequence provides a strong basic science basis upon which the chiropractic and clinical sciences are built. As clinical subjects are introduced, students make the transition to becoming doctors of chiropractic. In the classroom, laboratory and clinics, students learn to take patient health histories and conduct examinations (including clinical, orthopedic, neurologic, laboratory and imaging examinations) and interpret findings in forming clinical decisions, leading to a diagnosis. Students learn that proper diagnosis is fundamental in determining appropriate treatment and in measuring the patient's response to chiropractic care.

Department of Basic Science (15 courses, 55.75 credits)

Chair: Mary Tuchscherer, MS, PhD, DC

Courses include biochemistry, anatomy (including a focused course on the spine and pelvis), embryology, histology, immunology and microbiology, neuroscience, pathology, and physiology. These courses provide a firm foundation for the development and acquisition of clinical skills and knowledge. These sciences are essential to the development of an understanding of the complexities of the structural basis of health and disease, as well as the nature of the functioning of the human body in health and disease.

Department of Chiropractic Studies (16 courses, 28.25 credits)

Chair: Donald Eggebrecht, BA, DC, DABCO

Courses in chiropractic principles and philosophy provide students with the history of the chiropractic profession, as well as the nature of the chiropractic health care model and its principal tenets. Chiropractic methods courses, including lectures and experiential learning, set the stage for the life-long journey to becoming a master in the art of chiropractic adjustment and manipulation. Students will take classes covering physiological therapeutics, exercise and rehabilitation, as well as three years of methods curricula.

Department of Diagnostic and Clinical Sciences (15 courses, 42.5 credits)

Chair: William Elkington, BA, DC

The process of arriving at a diagnosis involves cognitive, behavioral and affective skills that are acquired over a period of time and sharpened with clinical experiences. These courses are delivered over a six-trimester period and include a variety of learning experiences, such as lecture, small-group, experiential laboratories, self-directed study and online learning. The courses include Clinical Skills 1 and 2 (which prepare students to obtain a medical history and perform a physical examination), clinical pathology, and a number of specialized system-based courses which cover the diagnosis and chiropractic role in the management of a variety of health problems.

Department of Health Promotion and Wellness (11 courses, 23.45 credits)

Chair: Tolu Oyelowo, MS, DC

The health promotion and wellness course sequence is designed to provide students with the knowledge and skills necessary to apply chiropractic care to special populations, including courses covering the unique aspects of diagnosis and treatment of pregnant patients, infants and children, women and the elderly. Courses in this department also cover the topics of public health, health promotion and wellness, especially as these apply to the practice of chiropractic.

***Department of Diagnostic Imaging
(7 courses, 15.5 credits)***

Chair: Anita L. Manne, BS, DC, DACBR

The diagnostic imaging sequence provides the student with the skills and knowledge to use imaging appropriately in chiropractic practice. The role of imaging technology in diagnostic decision-making is covered in a carefully constructed sequence of courses beginning with normal radiographic anatomy and culminating with specialized courses covering all aspects of the chiropractic imaging sciences.

***Department of Business and Professional Foundations
(10 courses, 12.5 credits)***

Chair: Terry Erickson, BS, DC

Northwestern's business and professional foundations curriculum is the most extensive business curriculum in chiropractic education and spans nine trimesters. The learning opportunities in this area will allow students to develop the personal and business skills required to successfully operate a professional health care practice. The principles covered are applicable regardless of the business and professional entity or arrangement the graduate chooses.

***Department of Clinical Education
(9 courses, 47 credits)***

Chair: Warren Moe, BS, DC, CCSP

Clinical training starts in the first trimester and continues through the entire curriculum beginning with observation and progressing to mentored patient contact for competent and successful chiropractic practice. Students develop their patient care skill through a variety of real-world experiences in the Natural Care Centers of Northwestern Health Sciences University and with chiropractic doctors working in private practice settings, and in community service learning environments.

Elective Courses

There are a growing number of elective courses offered by the College of Chiropractic. Students are required to take a minimum number of electives beginning in the seventh trimester. Electives include courses in chiropractic methods, cases studies, research, diagnostic imaging, geriatrics, strategic planning, issues in social biology and others.

Course List

The required curriculum for the Doctor of Chiropractic degree is composed of a sequence of courses offered in 10 separate 15- or 17-week trimesters for a minimum total of 4,320 contact hours, exclusive of elective courses of study.

PROGRAM CHANGES

Northwestern Health Sciences University reserves the right to change or discontinue academic programs at the University's discretion.

Trimester 1 – 15 weeks

Course Number	Title	(Hours per week)			Credits	Contact Hours
		Lecture	Lab	Clinic		
11010	Biochemistry 1	4	2	–	5	90
23510	Business and Professional Foundations 1	1	–	–	1	15
25510	CPR	.5	–	–	.5	8
13010	Gross Anatomy 1	3	5	–	5.5	120
15010	Histology 1	3	1.5	–	3.75	67.5
22710	Infection Control	.2	–	–	.2	3
19001	Introduction to Clinical Reasoning 1	.5	–	–	.5	7.5
33010	Methods 1	–	2	–	1	30
31010	Principles and Philosophy 1	1	–	–	1	15
20010	Skeletal Radiology 1	1	1	–	1.5	30
34010	Spine and Pelvis	3	–	–	3	45
	Totals	17.2	11.5	–	22.95	431

Trimester 2 – 15 weeks

Course Number	Title	(Hours per week)			Credits	Contact Hours
		Lecture	Lab	Clinic		
11330	Biochemistry 2	2	–	–	2	30
23520	Business and Professional Foundations 2	1	–	–	1	15
14220	Embryology	2	–	–	2	30
13120	Gross Anatomy 2	4	3	–	5.5	105
15120	Histology 2	3	1	–	3.5	60
29001	Introduction to Clinical Reasoning 2	.5	–	–	.5	7.5
33120	Methods 2	1	2	–	2	45
12120	Neuroscience 1: PNS	4	–	–	4	60
11120	Physiology 1	4	1	–	4.5	75
31120	Principles and Philosophy 2	2	–	–	2	30
	Totals	23.5	7	–	27	457.5

Trimester 3 – 15 weeks

Course Number	Title	(Hours per week)			Credits	Contact Hours
		Lecture	Lab	Clinic		
23530	Business and Professional Foundations 3	.75	–	–	.75	12
36001	Clinical Skills 1: Patient Interviewing	1	0.5	–	1.25	22.5
32050	Foundations of Evidence-Informed Practice	2	–	–	2	30
33230	Methods 3	1.5	3.5	–	3.25	75
36030	Neuromusculoskeletal System 1	3	–	–	3	45
12230	Neuroscience 2: CNS	3	–	–	3	45
17030	Pathology 1	3	–	–	3	45
11230	Physiology 2	4	1	–	4.5	75
37030	Principles and Philosophy 3	2	–	–	2	30
20130	Skeletal Radiology 2	2	1	–	2.5	45
	Totals	22.25	6.0	–	25.25	424.5

Trimester 4 – 15 weeks

Course Number	Title	(Hours per week)			Credits	Contact Hours
		Lecture	Lab	Clinic		
23540	Business and Professional Foundations 4	.75	–	–	.75	12
46002	Clinical Skills 2: Physical Diagnosis	3	2	–	4	75
16140	Immunology and Clinical Microbiology	3	1	–	3.5	60
33340	Methods 4	1.5	3.5	–	3.25	75
36140	Neuromusculoskeletal System 2	4	1	–	4.5	75
36141	Neuromusculoskeletal System 3	2	3.25	–	3.63	79
17140	Pathology 2	3	–	–	3	45
22040	Principles and Philosophy 4	2	–	–	2	30
20240	Skeletal Radiology 3	2	1	–	2.5	45
	Totals	21.25	11.75	–	27.13	496

Trimester 5 – 15 weeks

Course Number	Title	(Hours per week)			Credits	Contact Hours
		Lecture	Lab	Clinic		
23550	Business and Professional Foundations 5	.75	–	–	.75	12
36350	Clinical Nutrition 1	4	–	–	4	60
24050	Clinical Pathology 1	2	1.5	–	2.75	52.5
21250	EENT	2	1	–	2.5	45
25150	Infectious Diseases	2	–	–	2	30
41050	Introduction to Clinical Chiropractic	1	–	–	1	15
34150	Methods 5	1	2	–	2	45
56003	Neurodiagnosis	2	1.5	–	2.75	52.5
35151	Physiological Therapeutics 1	1	2.5	–	2.25	52.5
25250	Public and Preventive Health	2	–	–	2	30
20350	Skeletal Radiology 4	2	1	–	2.5	45
	Totals	19.75	9.5	–	24.5	439.5

Trimester 6 – 15 weeks

Course Number	Title	(Hours per week)			Credits	Contact Hours
		Lecture	Lab	Clinic		
23565	Business and Professional Foundations 6	.75	–	–	.75	12
23365	Cardiopulmonary System	3	2	–	4	75
41060	Clinic Internship 1	1	–	4	3	75
24160	Clinical Pathology 2	3.5	1.5	–	4.25	75
23562	Gastrointestinal/ Genitourinary Systems	3	2	–	4	75
34260	Methods 6	1	2	–	2	45
33561	Physiological Therapeutics 2	–	3	–	1.5	45
24760	Principles and Philosophy 5	1	–	–	1	15
20460	Radiation Physics and Safety	2	1	–	2.5	45
20661	Radiology of the Chest and Abdomen	2	1	–	2.5	45
	Totals	17.25	12.5	4	25.5	507

Trimester 7 – 15 weeks

Course Number	Title	(Hours per week)			Credits	Contact Hours
		Lecture	Lab	Clinic		
23575	Business and Professional Foundations 7	.75	–	–	.75	12
41170	Clinic Internship 2	1	–	4	3	75
36470	Clinical Nutrition 2	2	–	–	2	30
23890	Dermatology	1	–	–	1	15
25570	Emergency Procedures	1.5	2	–	2.5	52.5
23670	Endocrinology	1.5	–	–	1.5	22.5
25380	Maternal and Infant Health	2	–	–	2	30
26170	Mental Health 1	2	–	–	2	30
25980	Pharmacology	2	–	–	2	30
35170	Physiological Therapeutics 3	1	1	–	1.5	30
20570	Radiographic Technology and Positioning	1	1	–	1.5	30
23570	Women's Health	2	.5	–	2.25	37.5
	<i>Electives*</i>	–	–	–	–	–
<i>Totals</i>		17.75	7.5	4	23.5	439.5

Successful completion of the Comprehensive Competency Assessment is required before progression into T8 clinic or courses. This exam is first offered during the sixth trimester.

Trimester 8 – 15 week academic term, 17 week clinical term

Course Number	Title	(Hours per week)			Credits	Contact Hours
		Lecture	Lab	Clinic		
23576	Business and Professional Foundations 8	2	–	–	2	30
25490	Children's Health	2	–	–	2	30
41280	Clinic Internship 3	–	–	17-21	9	300
42280	Clinical Case Studies 1	1	–	–	1	15
25690	Health and the Older Person	2	–	–	2	30
26280	Mental Health 2	1	–	–	1	15
26281	Health Promotion	1	–	–	1	15
	<i>Electives*</i>	–	–	–	–	–
<i>Totals</i>		9	–	17-21	18	435

Trimester 9 – 15 week academic term, 17 week clinical term

Course Number	Title	(Hours per week)			Credits	Contact Hours
		Lecture	Lab	Clinic		
23577	Business and Professional Foundations 9	3	–	–	3	45
41390	Clinic Internship 4	–	–	17-21	9	300
42390	Clinical Case Studies 2	1	–	–	1	15
47190	Legal Aspects of Chiropractic Health Care	2	–	–	2	30
	Electives*	–	–	–	–	–
	Totals	6	–	17-21	15	390

Trimester 10 – 15 week clinical term

Course Number	Title	(Hours per week)			Credits	Contact Hours
		Lecture	Lab	Clinic		
41400	Clinic Internship 5	–	–	25-40	10	300-600
	OR					
41500	Clinic Internship 6**	–	–	25-40	10	300-600
	Totals	–	–	25-40	10	300-600
	Total Minimum				218.83	4,320-
						4,620

*The requirement for electives courses is 3 credits or 4 courses taken anytime during Trimesters 7-9.

**Interns who have completed all clinical quantitative requirements may register for Clinic Internship 6

COURSE DESCRIPTIONS

11010 Biochemistry 1

5 credits (90 hours): 60 lecture hours;
30 laboratory hours

This course offers a foundational look at the structure and function of proteins, carbohydrates, lipids, nucleic acids and vitamins. The function and regulation of enzymes is studied, followed by a detailed look at aerobic cellular respiration. The lab includes methods of separation and identification of biochemical constituents.

11330 Biochemistry 2

2 credits (30 hours): 30 lecture hours
Prerequisite: Biochemistry 1

A continuation of Biochemistry 1: details of the carbohydrate, lipid and amino acid metabolism; and the urea cycle are studied with an eye on the function of vitamins and trace elements. The interconnectedness as well as the regulation of metabolic pathways in health and disease is stressed.

23510 Business and Professional Foundations 1

1 credit (15 hours): 15 lecture hours

This course introduces new students to concepts and issues pertaining to building the foundations for the business of chiropractic practice and for becoming a professional. Discussion will include what it means to be a professional, ways that students can begin to grow in terms of displaying the qualities and behaviors expected of a professional, core/governing values, money concepts and budgeting.

23520 Business and Professional Foundations 2

1 credit (15 hours): 15 lecture hours

This course will introduce goal-setting that is consistent with governing values developed from the previous term. Public speaking in relation to addressing common questions in chiropractic practice will be explored with in-class speaking presentations.

23530 Business and Professional Foundations 3

.75 credit (12 hours): 12 lecture hours

This course will expose students to the concepts and issues that are central to aspects of routine office visits, including the history, examination, diagnostic testing and report of findings. Students will develop and apply skills of communication and rapport-building necessary for practice.

23540 Business and Professional Foundations 4

.75 credit (12 hours): 12 lecture hours

This course will focus on giving students a specific, detailed, formatted approach to new patient procedures. They will be exposed to a TEAM approach to managing patients during the consultation/history, examination, report of findings and the new patient health care class.

23550 Business and Professional Foundations 5

.75 credit (12 hours): 12 lecture hours

The first half of the course will focus on specific ways to enhance day-to-day professional communication skills. The second half is designed to take students to the next level in managing their business and practice through a detailed understanding of the different TEAM positions. TEAM building combined with clarity of vision, motivation in leadership and personal accountability will help build a successful practice.

23565 Business and Professional Foundations 6

.75 credit (12 hours): 12 lecture hours

This course will focus on reimbursement for services. CPT and ICD-9 coding will be reviewed with respect to proper submission to third-party payers for reimbursement. Rules regarding Medicare, Health Savings Accounts and cash payments plans will be discussed.

23575 Business and Professional Foundations 7

.75 credit (12 hours): 12 lecture hours

Networking for practice opportunities, advisors and promotion will be discussed. Demographics and practice options will be reviewed.

23576 Business and Professional Foundations 8

2 credits (30 hours): 30 lecture hours

Prerequisite: Successful completion of the Comprehensive Competency Assessment.

The main focus of this course will be marketing from multiple perspectives and individuals. Discussion will also include general practice topics such as vendors, office atmosphere, financial statements and investing.

23577 Business and Professional Foundations 9

3 credits (45 hours): 45 lecture hours

Prerequisite: Successful completion of the Comprehensive Competency Assessment.

The essentials of proper business and practice management are introduced. Topics include accounting, taxes, budget preparation, financing, marketing, investing and practice opportunities. Principles of investment are presented. A personal, detailed business plan is required for a passing grade.

23365 Cardiopulmonary System

4 credits (75 hours): 45 lecture hours;

30 laboratory hours

Prerequisite: Clinical Skills 2:
Physical Diagnosis

Discussion of the presentation, diagnosis and treatment of common complaints and important cardiovascular and pulmonary disorders. Students learn diagnostic and treatment procedures, and discuss how doctors of chiropractic can participate in the management of patients who have these disorders.

- 25490 Children's Health**
 2 credits (30 hours): 30 lecture hours
 Prerequisite: Successful completion of Comprehensive Competency Assessment
 Students develop an understanding of normal growth and development of the child, as well as recognition of common childhood conditions. An emphasis is placed on lifestyles and behaviors that support health maintenance and prevent common disorders or diseases of childhood.
- 41060 Clinic Internship 1**
 3 credits (75 hours): 15 lecture hours
 60 clinic hours
 The initial internship term begins with practical experiences accompanied by lecture and supported by web site resources. All elements of doctor-patient interaction are reviewed and discussed, including interviewing; examination; development of a diagnosis and management plan; re-evaluation; outcome assessment; and documentation. Through interaction with early-term chiropractic program students, interns refine the skills necessary for progression to the next phase of their clinical experience.
- 41170 Clinic Internship 2**
 3 credits (75 hours): 15 lecture hours
 60 clinic hours
 Prerequisite: Clinic Internship 1
 In the second internship term, students continue to apply and review all elements of the patient care process as they intern with faculty clinicians in University and private practice clinics caring for patients. In lecture and small group discussion sessions, students critique and discuss videotaped patient encounters. Topics emphasized include patient and professional communication; cultural competence; clinical thinking; and case management. During the practical and didactic elements of the course, students also advance their skills in gathering clinical information; synthesizing laboratory and radiographic data; arriving at accurate diagnostic decisions; providing health counseling; and competently treating clinic patients.
- 41280 Clinic Internship 3**
 9 credits (300 hours): 300 clinic hours
 Prerequisite: Clinic Internship 2, successful completion of Comprehensive Competency Assessment.
 During the 17-week clinic term, interns provide chiropractic care to patients under the supervision of faculty clinicians. Doctors of chiropractic mentor students in either the University's Natural Care Centers or the Community Based Internship program, and special populations clinics, as they further develop their competence in all elements of the clinical process. Prerequisites and other internship policies and procedures are described in the Clinic Handbook and explained during orientation sessions scheduled in Trimesters 7 and 8.
- 41390 Clinic Internship 4**
 9 credits (300 hours): 300 clinic hours
 Prerequisite: Clinic Internship 3
 During the 17-week clinic term, interns provide chiropractic care to patients under the supervision of faculty clinicians. Doctors of chiropractic mentor students in either the University's Natural Care Centers or the Community Based Internship Program, and special populations clinics, as they further develop their competence in all elements of the clinical process. Prerequisites and other internship policies and procedures are described in the Clinic Handbook and explained during orientation sessions scheduled in Trimesters 7 and 8.
- 41400 Clinic Internship 5**
 10 credits (300-600 hours): 300-600 clinic hours
 In the final academic term, students complete their internship by continuing to provide chiropractic care to patients in either the University Natural Care Centers or in any approved Community Based Internship. Interns carry out examinations, administer chiropractic care and deliver treatment under the direction of a supervising clinical faculty while completing their technical requirements for graduation.
- 41500 Clinic Internship 6**
 10 credits (300-600 hours): 300-600 clinic hours
 In the final academic term, students who have completed all clinical quantitative requirements related to patient visits, physical examinations, radiographic, laboratory and case management studies may expand their Clinic Internship options to include both urban and rural areas across the United States and in many foreign countries.
- 42280 Clinical Case Studies 1**
 1 credit (15 hours): 15 lecture hours
 Prerequisite: Successful completion of Comprehensive Competency Assessment.
 A variety of patient cases are presented and discussed in an interactive format. Most presenters are field doctors from the University's Community Based Internship program.
- 42390 Clinical Case Studies 2**
 1 credit (15 hours): 15 lecture hours
 Prerequisite: Successful completion of the Comprehensive Competency Assessment.
 In-office discussion by faculty clinicians and interns of patient cases commonly seen in the outpatient clinic setting.

36350 Clinical Nutrition 1
4 credits (60 hours): 60 lecture hours
Prerequisites: Biochemistry 1 & 2,
Physiology 1 & 2
Discussion of nutrient metabolism and physiologic function in the body. Components of nutrition, including vitamins, major minerals and trace elements. Macronutrients and micronutrients are discussed along with clinical applications.

36470 Clinical Nutrition 2
2 credits (30 hours): 30 lecture hours;
Prerequisite: Clinical Nutrition 1
Current application of nutritional management of common conditions encountered in chiropractic practice, including disorders of the organ systems. Discussion of nutritional needs throughout life. Students practice assessing nutritional status. Discussion of general, individual and community nutritional needs along with special patient populations.

24050 Clinical Pathology 1
2.75 credits (52.5 hours): 30 lecture hours;
22.5 laboratory hours
Prerequisites: Gross Anatomy 1 & 2,
Histology, Physiology, Microbiology, and
Biochemistry 1 & 2
Introduction to laboratory skills, including venipuncture, and discussion of urinalysis, hematology, anemia and serology. Emphasis on interpretation of laboratory test results and study of case histories to enhance clinical learning and diagnostic skills.

24160 Clinical Pathology 2
4.25 credits (75 hours): 52.5 lecture hours;
22.5 laboratory hours
Prerequisite: Clinical Pathology 1
Discussion of laboratory alterations accompanying abnormal function of body organs and specific diseases, with emphasis on interpretation of blood chemistries. Choosing appropriate lab tests. Correlation of laboratory results with patient history and examination findings. Case histories are used to illustrate important concepts of laboratory diagnosis.

36001 Clinical Skills 1: Patient Interviewing
1.25 credits (21 hours): 15 lecture hours;
6 laboratory hours
Prerequisites: Business and Professional
Foundations 1, 2 & 3,
Gross Anatomy 1 & 2, Physiology 1
Examines all areas of patient interviewing such as history of present illness, comprehensive health history, record-keeping, problem-oriented history-taking, narrative format histories, nonverbal communication and patients with special problems. Small group sessions involving interviews of simulated patients are utilized as are videotaped sessions of the students performing histories which are later critiqued for verbal and nonverbal communication skills.

46002 Clinical Skills 2: Physical Diagnosis
4 credits (75 hours): 45 lecture hours;
30 laboratory hours
Prerequisites: Gross Anatomy 1 & 2,
Physiology 1 & 2
Students learn and practice clinical examination and assessment, with emphasis on performing and interpreting comprehensive physical examination procedures of the non-neuromusculoskeletal systems in the adult patient.

25510 CPR (Cardiopulmonary resuscitation)
.5 credit (8 hours):
8 lecture and practical hours
This course will train students to respond to cardiac, respiratory and choking emergencies using basic life support skills and automatic external defibrillation. Students receive AHA Health Care Provider CPR certification.

Comprehensive Competency Assessment

Students take the Comprehensive Competency Assessment (CCA) during the sixth trimester. This examination assesses the student's ability to synthesize information from Basic and Clinical Science courses and to demonstrate their clinical skills. The CCA consists of multiple practical and written stations encompassing multiple cases. Students must pass the CCA by the end of T7 to progress to T8 courses or clinic internships.

23890 Dermatology
1 credit (15 hours): 15 lecture hours
Prerequisite: Clinical Skills 2:
Physical Diagnosis
Discussion of the presentation, diagnosis and treatment of dermatological conditions commonly encountered in chiropractic practice, including infections, tumors, allergic reactions, inflammatory conditions and skin injuries. The chiropractic role in caring for patients with skin conditions is discussed.

21250 EENT
2.5 credits (45 hours): 30 lecture hours;
15 laboratory hours
Prerequisite: Clinical 2:
Physical Diagnosis
Discussion of the presentation, diagnosis and treatment of common complaints and disorders of the eyes, ears, nose and throat. Students practice diagnostic and treatment procedures. Discussion on how doctors of chiropractic can participate in the management of patients with EENT disorders.

Electives

.75 credits each
(typically 12 hours of lecture or 22.5 hours of laboratory)

Students are required to complete four elective courses taken anytime during Trimester 7 through Trimester 9 for a total of 3 credits. Two of these must be technique electives.

Elective course availability varies per trimester. See elective section of this catalog for the list of course options.

14220 Embryology

2 credits (30 hours): 30 lecture hours
Corequisite: Gross Anatomy 2

The early human embryology (fertilization through the three germ layers) and the special embryology of the major organ systems, as well as special sense organs.

25570 Emergency Procedures

2.5 credits (52.5 hours): 22.5 lecture hours;
30 laboratory hours
Prerequisites: Infection Control, Clinical Skills 2: Physical Diagnosis

Basic techniques of assessment and management of patients experiencing airway, breathing, circulatory and traumatic emergencies. Customized for the doctor of chiropractic who may encounter emergency situations with adults or pediatric patients in clinical, home or athletic environments. Students receive AHA Health Care Provider CPR certification and may qualify for First Responder Certification from the State of Minnesota. Upon successful completion, students may be eligible to sit for the National Registry First Responder exam.

23670 Endocrinology

1.5 credits (22.5 hours): 22.5 lecture hours
Prerequisite: Clinical Skills 2:
Physical Diagnosis

Discussion of the presentation, diagnosis and treatment of common endocrine disorders and complaints, including the chiropractor's role in the management of patients with these disorders.

32050 Foundations of Evidence-Informed Practice

2 credits (30 hours): 30 lecture hours

This course uses a blended approach of classroom and online presentations and activities to introduce students to the basic principles of evidence-informed practice (EIP). EIP is an approach that integrates clinical findings, patient preferences, research, and clinical experience (all important types of evidence) into the process of health care delivery. Students learn the strengths and limitations of each element of the model and how to use them together to enhance clinical decision-making and patient outcomes.

23562 Gastrointestinal/Genitourinary Systems

4 credits (75 hours): 45 lecture hours;
30 laboratory hours
Prerequisites: Clinical Pathology 1,
Clinical Skills 2: Physical Diagnosis
Corequisite: Clinical Pathology 2

Discussion of the presentation, diagnosis and treatment of common gastrointestinal and genitourinary disorders and complaints. Students practice diagnostic and treatment procedures and discuss how doctors of chiropractic can participate in the management of patients with these disorders.

13010 Gross Anatomy 1

5.5 credits (120 hours): 45 lecture hours;
75 laboratory hours

An in-depth study of the human skeletal and muscular systems, regional anatomy of the extremities and an introduction to the nervous system. Laboratory includes human dissection.

13120 Gross Anatomy 2

5.5 credits (105 hours): 60 lecture hours;
45 laboratory hours
Prerequisite: Gross Anatomy 1
Corequisites: Histology 2, Embryology

The gross anatomy of the special sense organs and the nervous, circulatory, digestive, respiratory, urogenital and endocrine systems; systemic and regional interrelationships. Laboratory includes human dissection.

25690 Health and the Older Person

2 credits (30 hours): 30 lecture hours
Prerequisite: Clinical Skills 2:
Physical Diagnosis, successful completion of
the Comprehensive Competency
Assessment.

Diagnosis and care of elderly patients with emphasis on common conditions and complaints, especially those likely to be present in chiropractic offices. Discussion of normal aging versus disease, theories of aging, demographic trends and special features of geriatric history-taking, examination, diagnosis and chiropractic care.

26281 Health Promotion 1

1 credit (15 hours): 15 lecture hours
Prerequisite: Successful completion of the
Comprehensive Competency Assessment.

Discussion of Healthy People 2010-2020 objectives and the synergy with the chiropractic practice. Development of educational resources and skills for screening, prevention and counsel regarding health promotion and wellness practices.

15010 Histology 1
3.75 credits (67.5 hours): 45 lecture hours;
22.5 laboratory hours
Microanatomy of cells and tissues. This course surveys the microscopy and ultrastructure of cells; introduces the four basic tissue types; and stresses the functional anatomy of epithelium, connective tissues, muscles and nerve tissue.

15120 Histology 2
3.5 credits (60 hours): 45 lecture hours;
15 laboratory hours
Prerequisite: Histology 1
The functional microanatomy of the organs of the circulatory, digestive, respiratory, urinary, reproductive, endocrine and immune systems.

16140 Immunology and Clinical Microbiology
3.5 credits (60 hours): 45 lecture hours;
15 laboratory hours
Prerequisite: Biochemistry 1
Recommended: Pathology 1, Histology 2
An overview over the human body's immune defenses precedes the study of factors that impact immune mechanisms. In addition, the theoretical and practical basis of clinical microbiology: structure, classification, genetics, control, cultivation and identification of typical species of bacteria, viruses, fungi and parasites, as well as interactions between microorganisms and the immune system are introduced.

Infection Control
22710
.2 credit (3 hours): 3 lecture hours
Students will learn the principles of infection control, blood borne pathogens and OSHA regulations and apply them to both classroom and clinical settings.

25150 Infectious Diseases
2 credits (30 hours): 30 lecture hours
Prerequisite: Microbiology
Discussion of infectious disease, with emphasis on common pathogens and the diseases they cause. Discussion of the presentation, diagnosis and treatment of common complaints of infectious diseases.

41050 Introduction to Clinical Chiropractic
1 credit (15 hours): 15 lecture hours
This course assists the student through the transition from the classroom to the clinical environment by introducing the patient care and record-keeping procedures of University Health Services. Web site resources augment lecture and small group discussion sessions covering all aspects of documentation and the clinic procedures students will follow during their initial patient care experiences in the subsequent term.

19001 Introduction to Clinical Reasoning 1
.5 credit (7.5 hours): 7.5 seminar hours
Students meet weekly with a faculty facilitator for a guided study of a virtual case, using problem-based learning and group discussion.

29002 Introduction to Clinical Reasoning 2
.5 credit (7.5 hours):
7.5 seminar hours
This seminar is a continuation of the Introduction to Clinical Reasoning 1 course and introduces students to two or more case studies which illustrate a number of relevant issues regarding chiropractic practice. Again, the emphasis is on personal discovery and learning based on the class discussions.

47190 Legal Aspects of Chiropractic Health Care
2 credits (30 hours):
30 lecture hours
Prerequisite: Successful completion of the Comprehensive Competency Assessment.
Overview of the legal environment of chiropractic service. Topics include malpractice, the chiropractic report, contracts, legal entities, direct and cross examination, chiropractic statutes, scope of practice and ethics. Material covers the statutes and ethics that govern chiropractic practice, how to legally begin a business, how to prepare a legal case report and how to obtain malpractice insurance.

25380 Maternal and Infant Health
2 credits (30 hours):
30 lecture hours
This course covers the physiologic and biomechanical changes normal to pregnancy. Those behaviors that maximize health in pregnancy for the mother and her unborn child will be addressed in depth. Health aspects of the first year of life are also discussed.

26170 Mental Health 1
2 credits (30 hours): 30 lecture hours
Examination of important psychological theories, assessment tools and conditions. Discussion of common presentations of psychological disorders, how to screen for these conditions in the chiropractic office and fundamentals of treatment. Diagnostic categories and syndromes are reviewed.

26280 Mental Health 2
1 credits (15 hours): 15 lecture hours
Prerequisite: Mental Health 1, successful completion of the Comprehensive Competency Assessment.
Discussion of the serious mental health diseases and how they may manifest in the chiropractic office. Overview of allopathic and, where they exist, non-allopathic treatment of these conditions. Utilization of the DSM V.

33010 Methods 1: Analysis Skills 1

1 credit (30 hours): 30 laboratory hours

The fundamental terminology and skills used by the chiropractor during patient assessment (PARTS) are introduced, including patient observation and postural assessment, visual recognition and palpation of topographical landmarks, segmental motion palpation, and the physical and radiographic recognition of vertebral dysrelationships.

33120 Methods 2: Analysis Skills 2

2 credits (45 hours): 15 lecture hours;
30 laboratory hours

Prerequisite: Methods 1, successful completion of the Comprehensive Competency Assessment.

Development and integration of skills necessary to detect various manifestations of spinal subluxation and/or dysfunction, including static and motion palpation (active, passive, end feel), radiographic marking and mensuration, and postural examination.

33230 Methods 3: Cervical and Thoracic Manual Therapies

3.25 credits (75 hours): 22.5 lecture hours;
52.5 laboratory hours

Prerequisite: Methods 2

Introduction to applied adjustive procedures using high-velocity, low-amplitude thrusts in the cervical and thoracic regions. Methods derived from various technique systems (e.g. Gonstead, Thompson, Faye, Diversified) are practiced under direct supervision after PARTS evaluation has identified segments for which adjustments are indicated.

33340 Methods 4: Lumbopelvic Manual Therapies

3.25 credits (75 hours): 22.5 lecture hours;
52.5 laboratory hours

Prerequisite: Methods 3

Introduction to applied adjustive procedures using high-velocity, low-amplitude thrusts to lumbar and pelvic regions; continued development of same in the cervical and thoracic regions. Methods derived from various technique systems (i.e. Gonstead, Thompson, Faye, Diversified) are practiced under direct supervision after PARTS evaluation has identified segments for which adjustments are indicated. Provide the student with an introduction to high-velocity, low-amplitude thrust techniques for the lumbar spine and pelvis. Emphasis is on the development of the psychomotor skills necessary to safely apply the techniques to dysfunctional joints.

34150 Methods 5: Practicum 1

2 credits (45 hours): 15 lecture hours;
30 laboratory hours

Prerequisite: Methods 4

In this course, students will review psychomotor skills learned in previous methods courses as well as explore assessment and management strategies for common axial and appendicular conditions. Students will continue to develop their skills and discuss specific modifications that may be necessary to fit specific doctor and/or patient needs. Online case studies are utilized in conjunction with classroom discussions of those cases to help students develop their clinical reasoning skills and interpret clinical relevance of history and examination findings. These exercises also incorporate discussion concerning treatment plans for the management of commonly encountered spinal conditions.

34260 Methods 6: Practicum 2

2 credits (45 hours): 15 lecture hours;
30 laboratory hours

Prerequisite: Methods 5

Continued development of chiropractic diagnostic and adjustive skills. Complete management strategies of common axial and appendicular conditions are discussed and practiced.

56003 Neurodiagnosis

2.75 credits (52.5 hours): 30 lecture hours
22.5 laboratory hours

Prerequisites: Neuroscience 1 & 2

Students will study the presentation, diagnosis and treatment of common disorders and complaints of the peripheral and central nervous systems.

36030 Neuromusculoskeletal System 1: Principles and Overview

3 credits (45 hours): 45 lecture hours

Prerequisites: Spine and Pelvis,
Skeletal Radiology 1, Neuroscience 1

Corequisite: Clinical Skills 2:

Physical Diagnosis

Discussion of the integral relationship between neuromusculoskeletal structure and function and the healthy function of all other body systems and organs. Introduction to the evaluation and treatment of neuromusculoskeletal responses to common postural and traumatic insults and to pathologies in the neuromusculoskeletal system and other body systems. Students practice diagnostic and treatment procedures and discuss how chiropractors can participate in the management of patients who have NMS disorders.

36140 Neuromusculoskeletal System 2: Spinal Disorders

4.5 credits (75 hours): 60 lecture hours;
15 laboratory hours
Prerequisites: NMS 1, Clinical Skills 2:
Physical Diagnosis,
Skeletal Radiology 2

Discussion of the presentation, diagnosis and treatment of spinal and paraspinal conditions and complaints. Students practice diagnostic and treatment procedures, and discuss how doctors of chiropractic can participate in the management of patients who have spinal and paraspinal disorders.

36141 Neuromusculoskeletal System 3: Extremity Disorders

3.62 credits (79 hours): 30 lecture hours;
49 laboratory hours
Prerequisites: NMS 1,
Gross Anatomy 1 & 2;
Physiology 1 & 2

Discussion of the biomechanics of the extremities and the presentation, diagnosis and treatment of common complaints and disorders. Students practice diagnostic and treatment procedures, including adjustments and manipulations, and discuss how doctors of chiropractic can participate in the management of patients with extremity disorders.

12120 Neuroscience 1: Peripheral Nervous System

4 credits (60 hours): 60 lecture hours
Prerequisite: Gross Anatomy 1
Corequisite: Physiology 1

In-depth study of the organization of the nervous system followed by a detailed study of neurophysiology, including receptor pharmacology; spinal nerves, with major emphasis on visceral and somatic afferent and efferent PNS pathways; reflex arcs; common segmental innervations; and dermatomes.

12230 Neuroscience 2: Central Nervous System

3 credits (45 hours): 45 lecture hours
Prerequisites: Gross Anatomy 1 & 2

The anatomy and function of the brain and spinal cord.

17030 Pathology 1

3 credits (45 hours): 45 lecture hours
Prerequisites: Histology 1 & 2,
Biochemistry 1

Concepts of general pathology, including cellular and tissue reactions to injury, mechanisms of inflammation, role of complement, immunology, hypersensitivity, concepts of neoplasia and hemodynamic disorders.

17140 Pathology 2

3 credits (45 hours): 45 lecture hours
Prerequisite: Pathology 1

Study of the pathologic changes in specific body organs and systems in autoimmune, environmental, infectious, degenerative and neoplastic diseases.

25980 Pharmacology

2 credits (30 hours):
30 lecture hours

Major drug classifications and their most common applications. The rationale for pharmacological intervention in common disorders. Discussion of patient compliance issues, drug abuse, drug side effects and adverse reactions, and basic concepts regarding pharmacodynamics and kinetics, the therapeutic window and toxicity.

35151 Physiological Therapeutics 1: Modality Applications

2.25 credits (52.5 hours): 15 lecture hours;
37.5 laboratory hours

Theories and application of heat, cold, traction, electrical modalities, vibration and light as adjuncts to patient management. Discussion of indications, contraindications and modifications of physiological therapeutics based on various conditions and situations.

33561 Physiological Therapeutics 2: Soft Tissue Techniques

1.5 credits (45 hours): 0 lecture hours;
45 laboratory hours

Students will study the therapeutic management of soft tissue dysfunction of the axial and appendicular skeleton.

35170 Physiological Therapeutics 3: Exercise and Rehabilitation

1.5 credits (30 hours): 15 lecture hours;
15 laboratory hours

Discussion of the role of exercise in the comprehensive conservative management of commonly encountered conditions. Principles of exercise therapy and exercise psychology. Concepts and skills relative to exercise techniques and emphasis on spinal stabilization. Specific protocols regarding the prescription of exercise.

11120 Physiology 1

4.5 credits (75 hours): 60 lecture hours;
15 laboratory hours
Corequisite: Neuroscience 1
Recommended: Gross Anatomy 2,
Histology 2

Study of cell membrane physiology and electrophysiology. Survey of the physiology of neuronal functions and in-depth study of skeletal, smooth and cardiac muscle physiology. Cardiovascular and respiratory physiology will be covered in detail with facilitative learning using clinical case studies.

- 11230 Physiology 2**
4.5 credits (75 hours): 60 lecture hours;
15 laboratory hours
Prerequisite: Physiology 1 or Instructor consent, Biochemistry 1
The primary objective of this course is to emphasize systems of human physiology. The course will feature lectures, labs and case studies on renal, digestive, endocrine and reproductive systems. Miscellaneous topics such as special senses will be covered in this course.
- 31010 Principles and Philosophy 1: History and Fundamentals of Chiropractic**
1 credit (15 hours): 15 lecture hours
A historical perspective of the principles on which chiropractic was founded and developed, emphasizing the role of philosophy in health care science.
- 31120 Principles and Philosophy 2: Essential Principles of Chiropractic**
2 credits (30 hours): 30 lecture hours
Prerequisite: Principles and Philosophy 1
The scientific tenets that guide the philosophy of chiropractic health care are discussed, with emphasis on the concepts that alterations of body structure can influence neurological function, which in turn, can impact body physiology and homeostatic balance.
- 37030 Principles and Philosophy 3: Survey of Chiropractic Techniques**
2 credits (30 hours): 30 lecture hours
This course provides the student with an introduction to various and selected techniques systems that exist in the chiropractic profession. A discussion and critical appraisal of each system will occur based on a model for evaluation and validation of manipulative therapy. Emphasis will be on the developer of each technique, the biomechanical principles upon which it is based, and how patients are evaluated and treated using the technique. The current research status of each technique will also be discussed. Clearly this is not a "how to" hands-on practical class. Rather it is designed to present the information known about some of the more common and not-so-common techniques used by doctors of chiropractic. Foundational information will be presented on the rationale for manipulative procedures in their various forms as well as the lesion they target.
- 22040 Principles and Philosophy 4: Chiropractic Science and Practice**
2 credits (30 hours): 30 lecture hours
Discussion of current scientific literature regarding chiropractic principles and philosophy of the subluxation model. Neuromusculoskeletal and visceral conditions are discussed with the subluxation model of facilitation and adaptation in mind. Particular emphasis is placed on evidence related to the reciprocal influence between dysfunction of the neuromusculoskeletal system and related dysfunction in other systems. The influences of subluxation and the effects of chiropractic care and the adjustment on the health of the entire body are also stressed.
- 24760 Principles and Philosophy 5: Professional Ethics**
1 credit (15 hours): 15 lecture hours
Presentation of key ethical issues encountered in the professional setting. Emphasis is on those issues commonly occurring in the chiropractic patient-care environment.
- 25250 Public and Preventive Health**
2 credits (30 hours): 30 lecture hours
Introduction to public health and the role of the chiropractor as a primary care provider within the public health system. Discussion topics include an individual, community and systems approach to prevention, Healthy People 2010 – 2020, epidemiology, social, behavioral, biomedical and environmental sciences, health policy and management.
- 20460 Radiation Physics and Safety**
2 credits (45 hours): 30 lecture hours;
15 laboratory hours
Introduction to the safe production of quality radiographs. Students discuss the physics of X-ray production, the principles of radiobiology and radiation protection, and regulations regarding the use of ionizing radiation equipment as typified by those of the Minnesota Department of Health.
- 20570 Radiographic Technology and Positioning**
1.5 credits (30 hours): 15 lecture hours;
15 laboratory hours
Prerequisite: Radiation Physics and Safety
Learn and practice the skills necessary to produce diagnostic radiographs of skeletal and related body components, including measurement, positioning, radiation protection, technique factor calculation, and equipment set-up and operation. Emphasis is on the projections commonly used in chiropractic practice.

20661 Radiology of the Chest and Abdomen

2.5 credits (45 hours): 30 lecture hours;
15 laboratory hours
Corequisites: Cardiopulmonary System,
Gastrointestinal/Genitourinary Systems

Students learn clinically oriented radiographic anatomy of the thorax and abdomen. Using a pattern recognition approach, a wide variety of abdominal and chest pathology is covered, with an emphasis on those conditions that are commonly encountered in a chiropractic setting and those conditions/diseases/disorders with disastrous consequences for failure to recognize. Patient history, examination, laboratory findings (when relevant) and treatment considerations.

20010 Skeletal Radiology 1

1.5 credits (30 hours): 15 lecture hours;
15 laboratory hours
Corequisites: Spine and Pelvis;
Gross Anatomy 1

This course forms the underpinnings of the Skeletal Radiology four-course sequence. A regional approach to normal anatomy of axial and appendicular skeletal structures is presented. Palpation skills learned in the concurrent course Methods 1 and detailed anatomical information learned in the concurrent courses Spine and Pelvis and Gross Anatomy 1 are highlighted to meld together related disciplines. Students learn the rudiments of how X-rays are generated how they form an image and how to view anatomy with this tool. A few common normal variants are presented as well.

20130 Skeletal Radiology 2

2.5 credits (45 hours): 30 lecture hours;
15 laboratory hours
Prerequisite: Skeletal Radiology 1

Assessment of spinal biomechanics, congenital anomalies and normal variants, with emphasis on correlation of radiographic findings with patient history, exam and lab findings. Discussion of various methods of chiropractic X-ray marking and measurement, and the benefits and limitations of each as supported by current literature. Introduction to imaging modalities commonly used or encountered in chiropractic practice.

20240 Skeletal Radiology 3

2.5 credits (45 hours): 30 lecture hours;
15 laboratory hours
Prerequisites: Skeletal Radiology 1 & 2

Radiographic interpretation of skeletal trauma using a regional approach. Presentation of degenerative, inflammatory and metabolic arthritides. Correlation of radiographic findings with those from patient history and physical examination and lab. Discussion of various concerns regarding case management.

20350 Skeletal Radiology 4

2.5 credits (45 hours): 30 lecture hours;
15 laboratory hours
Prerequisites:
Skeletal Radiology 1, 2 & 3

The culmination of the Skeletal Radiology four-course sequence, Skeletal Radiology 4 provides students with the clinical, pathologic and radiologic features of a wide variety of bone pathology: neoplastic, infectious, vascular, endocrine, metabolic, hematologic, congenital and nutritional disorders. Commonly encountered conditions are emphasized as well as those with disastrous consequences for failure to identify. Discussion of various concerns regarding case management and follow-up imaging concepts are presented.

34010 Spine and Pelvis

3 credits (45 hours): 45 lecture hours

Introduction to the functional anatomy and biomechanics of the spinal column and pelvis. Special consideration is given to highlight areas that are of clinical importance to chiropractic. This course is intended to form a foundation for clinical science courses.

23570 Women's Health

2.25 credits (37.5 hours): 30 lecture hours;
7.5 laboratory hours
Prerequisite: Clinical Skills 2:
Physical Diagnosis

Discussion of chiropractic and medical management of women's health problems with emphasis on lifestyles and behaviors which enhance and promote health in women. Introduction to breast and pelvic examination.

ELECTIVES: COLLEGE OF CHIROPRACTIC

E7207 Adapting Chiropractic Technique for the Geriatric Population

.75 credits (22.5 hours): 22.5 laboratory hours

Prerequisites: Chiropractic student, T7 or higher

This course offers students the ability to research topics pertaining to the geriatric patient as they relate to chiropractic care and conservative management. Students will research a chosen topic that pertains to this specialty population, and then will provide a presentation to their peers, followed by open discussion.

E7301 Challenging Cases in a Chiropractic Orthopedic Practice

.75 credits (12 hours): 12 lecture hours

Prerequisites: Chiropractic student, T7 or higher

This elective is taught by a certified chiropractic orthopedic specialist and includes guided discussions of challenging clinical cases. The cases include complex cases which may have serious sequelae, such as: spinal stenosis, acute cervical spine trauma, disc herniation, acute knee pain and torticollis, among others.

E7401 Clinical Imaging – A Multi-Modality Case Study Approach

.75 credits (12 hours): 12 lecture hours

Prerequisites: Chiropractic student, T7 or higher

Case study radiology course with real-life, hands on skill-development in film interpretation with overview of basic MRI correlation to common conditions.

E7101 Critical Issues in Social Biology

.75 credits (12 hours): 12 lecture hours

Prerequisites: Chiropractic student, T7 or higher, Massage Therapy student, T2 or higher

This course is offered completely via discussion. It will cover selected biological issues that affect society. The issues may be controversial without clear-cut answers. As health care professionals in the community, chiropractors may be called upon to give knowledge, opinions, advice, etc. In addition to instructor chosen topics, the students will write a short paper on a topic of their choice.

E7206 Flexion Distraction

.75 credits (22.5 hours): 22.5 laboratory hours

Prerequisite: Chiropractic student, T7 or higher

This course introduces the students to two mechanically assisted adjustive techniques for the cervical, thoracic, lumbar and pelvic regions. Mechanically assisted extremity techniques will be briefly discussed. Flexion Distraction will be based on the work of Dr. James Cox with a focus on the evaluation, diagnosis and treatment of facet Syndrome, intervertebral disc herniation, and Spondylolisthesis. In addition, the use of stationary flexion or extension pre-stress will be introduced for the adjusting of the cervical and thoracic regions and molding as a treatment for Scoliosis. Drop piece use will be based on the work of Dr. J. Clay Thompson with a focus on sacral subluxation (prone and supine), ilium subluxation (prone and supine), facet syndrome, cervical, thoracic and extremity subluxations.

E7304 High School Pre-Participation Physical and Fitness Challenge

.75 credits (16 hours): 4 lecture hours,

12 laboratory hours

Prerequisites: Chiropractic student, T7 or higher

This introductory course will provide a basic understanding of the flow of a combined pre-participation physical with a fitness challenge. The design is to identify sport readiness, physical strength, flexibility, aerobic fitness and agility.

E7502 Introduction to Applied Ergonomics (Occupational Health 2)

.75 credits (12 hours): 12 lecture hours

Prerequisites: Chiropractic student, T7 or higher

This course will provide advanced trimester chiropractic students with an introductory understanding of applied ergonomics. The information will include historic considerations as well as practical, step by step methodology leading to the development of intervention strategies for the prevention of ergonomically induced workplace injuries and disorders.

E7501 Introduction to Occupational Health 1

.75 credits (12 hours): 12 lecture hours

Prerequisites: Chiropractic student, T7 or higher

This course provides advanced trimester students with a broad overview of the role of chiropractic in the specialty field of occupational health. The training will induce a brief history of intervention strategies involved in the presentation and clinical case management of workplace injuries and disorders, governmental regulations and the professional services provided by appropriately trained doctors of chiropractic.

E7302 Introduction to Sports Injuries, Part 1

.75 credits (16 hours): 8 lecture hours,
8 laboratory hours

Prerequisites: Chiropractic student, T7 or higher
Laboratory Fee: \$32.50 covers additional costs
of taping supplies

Introductory course for the identification, treatment and management of 8 frequently encountered sports injuries.

E7303 Introduction to Sports Injuries, Part 2

.75 credits (16 hours): 8 lecture hours,
8 laboratory hours

Prerequisites: Chiropractic student, T7 or higher
Laboratory Fee: \$32.50 covers additional costs
of taping supplies

This course will provide a basic understanding of the mechanism of injury, the evaluation, treatment and management. Conditions covered will be: Knee Sprain Strain (ACL & PCL ligaments), Shoulder Dislocation & Sprain Strain, Elbow Sprain Strain, High Ankle Sprain Strain. The Pre-participation Sports Physical will be introduced based on the MN State High School Association and will be familiar with the ACSM and the ABCSP recommendations.

E7205 Instrument Adjusting/Activator Methods

.75 credits (22.5 hours): 22.5 laboratory hours

Prerequisites: Chiropractic student, T7 or higher

The purpose of this course is to introduce and provide the students with knowledge of the most commonly used adjusting instruments. In addition, theoretical and practical aspects of the "Special Tests" category of PARTS model of subluxation assessment will be presented. These include such tests as relative leg length inequality, and patterns painful that have been associated with patients with common NMS complaints. The student will enter the course with the ability to evaluate the commonly encountered spinal joint problems and selected articulations of the extremities. During the course of the trimester, the student will become proficient in applying instrument adjusting. Completion of this course satisfies one step towards obtaining an Activator proficiency rating.

E7201 Instrument Assisted Soft Tissue Mobilization (Graston)

.75 credits (22.5 hours): 22.5 laboratory hours

Prerequisites: Chiropractic student, T7 or higher

This technique laboratory course combines instrument-assisted soft tissue mobilization with a targeted exercise program to address connective tissue dysfunction. The technique uses Graston patented stainless steel instruments that are designed to adapt to the various tissue/shapes/curves of the body to precisely examine and treat a variety of neuromusculoskeletal conditions. Instrument-assisted soft tissue mobilization is soft tissue mobilization that allows the clinician to detect and treat soft tissue dysfunction that produces pain, weakness and functional limitation for the patient. The instruments are designed to provide an adjunct to a clinician's hands. Developing good manual skills is crucial to the effectiveness of this technique. Hands on application using the instruments will be stressed as part of an overall treatment.

E7202 Special Diversified Techniques

.75 credits (22.5 hours): 22.5 laboratory hours

Prerequisites: Chiropractic student, T7 or higher

This course is designed to give the chiropractic student options and variations in their adjusting protocols including: SOT type pelvic balancing protocol, sacral pump/ 2 cranial techniques, lumbar side posture with axial distraction, CT junction, TL options, SI drop piece use, post isometric manipulation, Device Assisted Pelvic Pattern, seated adjustments, nose to toes style manual adjusting, and cervical and lumbar exam flows. This class offers a lot of hands on lab time and individual attention.

E7505 Stress Reduction Techniques: the Spirit Component

.75 credits (22.5 hours): 22.5 lab/lecture hours

Prerequisites: Chiropractic student, T7 or higher

The purpose of this course is to explore the relation of spirit to the mind and body leading to the need to regularly exercise all three for promoting health. The focus is to learn and apply stress reduction techniques including meditation and chi gong exercises. Meditation has been practiced since ancient times and is now catching on worldwide as a means to reduce stress or to help with pain caused by various illnesses. Students will engage in both experiential and intellectual learning. They will practice and apply stress-reduction techniques through "mindfulness" – the steady, intentional gathering of nonjudgmental awareness into the present moment in various activities. Techniques will be discussed and demonstrated leading to individual development and presentation with the purpose of being able to use them with patients. In addition, students will be able to use effective mindfulness techniques to enhance clinical skills and become more mindful in both personal and professional situations. The physiology of belief will be presented and the influence of some pioneers of the spirit connection from within and outside of the chiropractic profession will be discussed.

E7203 Structural Approach 1 – Axial Spinal

.75 credits (22.5 hours): 22.5 laboratory hours

Prerequisites: Chiropractic student, T7 or higher

This class provides chiropractic students with an easily understood, highly reliable structural approach to clinical assessment and the application of specific manual adjustive care for the human pelvis and spine. The full-spine theories expressed and the methods taught are based largely on the mechanical engineering concepts and specific adjustive procedures as developed and practiced by chiropractic pioneer Dr. Clarence Gonstead. The class will be primarily a hands-on laboratory experience, which will include appropriate explanation, discussion, and observation of the fundamentals involved that form the rationale for this approach to chiropractic care.

E7204 Structural Approach 2 – Extremities

.75 credits (22.5 hours): 22.5 laboratory hours

Prerequisites: Chiropractic student, T7 or higher

This class provides chiropractic students with an easily understood, highly reliable structural approach to clinical assessment and the application of specific manual adjustive care for the clinical afflictions of the upper and lower extremities. The class will be primarily a hands-on laboratory experience, which will include appropriate explanation, discussion, and observation of the fundamentals involved that form the rationale for this approach to chiropractic extremity care. A variety of specific manual and soft tissue extremity techniques will be discussed, demonstrated and practiced by class participants.

E7208 Upper Cervical Technique

.75 credits (22.5 hours): 22.5 laboratory hours

Prerequisites: Chiropractic student, T7 or higher

This is an introductory course to upper cervical technique, with emphasis on methods promulgated by the National Upper Cervical Chiropractic Association (NUCCA). It will include basics on the philosophy and biomechanics of the upper cervical subluxation complex, patient screening, x-ray positioning and analysis, and patient positioning for the adjustment.



Northwestern

Health Sciences University



College of Acupuncture and Oriental Medicine



Explore the College of Acupuncture and Oriental Medicine

Master's Degrees and Internationally Trained Faculty

STATEMENT OF PURPOSE

The purpose of the College of Acupuncture and Oriental Medicine at Northwestern Health Sciences University is to offer professional, graduate degree and advanced programs in acupuncture and Oriental medicine. We are committed to training competent and compassionate practitioners. In so doing, we support the mission of the University, the advancement of acupuncture and Oriental medicine, and the integration of the professions into the health care system of the United States.

GOALS

These activities are necessary to fulfill our purpose:

1. Convene a faculty of experts in their respective fields who are also skilled educators;
2. Provide accredited programs that meet national educational standards and reflect the College's unique character as part of a multidisciplinary health sciences university;
3. Recruit a student body with the academic skills, maturity and personal commitment that will help them develop into competent and caring practitioners;
4. Maintain a learning environment and academic standards that will ensure that students acquire the knowledge, skills and attributes necessary for the competent and responsible practice of acupuncture and Oriental medicine in contemporary health care environments;
5. Provide supervised clinical training in diverse environments that enables students to gain experience in the practical application of their knowledge and skills;
6. Provide leadership in the development of relevant and progressive continuing education for our graduates and members of the professional health care community;
7. Increase public awareness of acupuncture and Oriental medicine by providing community outreach programs and affordable clinical services;
8. Develop new programs in response to community needs, encourage public service, and cooperate with individuals and institutions having similar values.

EDUCATIONAL OBJECTIVES

In addition to meeting the University Learning Outcomes, Northwestern graduates will be able to:

1. Demonstrate a thorough knowledge of traditional Chinese medical theory, an appropriate knowledge of Western medical theory and apply that combined knowledge effectively in a clinical setting;
2. Demonstrate appropriate skills in diagnosis, treatment planning and treatment, including appropriate referral;
3. Demonstrate that the diagnostic and treatment planning process respects the patient as a whole person rather than as a collection of symptoms;
4. Pass National Board examinations and be eligible for licensing and practice in Minnesota;
5. Demonstrate the business skills necessary to succeed in professional practice.

PROGRAMS OF STUDY

Northwestern offers two graduate programs leading to the Master of Acupuncture and Master of Oriental Medicine degrees. Northwestern also offers an Herbal Medicine Certificate for licensed acupuncture practitioners who want to expand their skills in Chinese herbal medicine.

The Master of Oriental Medicine program is a full-time program that provides more than 3,000 hours of didactic and clinical instruction in acupuncture, biomedical clinical sciences, Chinese herbology and related studies. The program may be completed in three calendar years (nine consecutive trimesters) and must be completed within eight years from the date of matriculation.

The Master of Acupuncture program is a full-time program that is similar to that of the Oriental Medicine program, but does not include herbal studies. This program includes more than 2,300 hours of instruction and may be completed in two and two-thirds calendar years (eight consecutive trimesters). The program must be completed within six years from the date of matriculation.

The Herbal Medicine Certificate program is a part-time program which provides licensed acupuncturists with almost 500 hours of instruction and 240 hours of clinic internship with which to develop the skills necessary for the safe and effective practice of Chinese herbal medicine. The certificate program is typically completed in two and one-third calendar years (seven consecutive trimesters) but may be extended due to individual circumstances.

ADMISSION INFORMATION

Admission to the College

Northwestern admits individuals qualified by previous education and experience to meet the college's academic challenges and rigor in order to become a practitioner of acupuncture and Oriental medicine. New students are admitted in September and January of each academic year. Transfer students may be admitted at the beginning of any trimester. (See "Transfer Application" section.)

Applications for admission, as well as current tuition and fees, are available either online at <http://www.nwhealth.edu> or may be obtained by contacting the Office of Admissions. The application for admission must be accompanied by a non-refundable application processing fee of \$50 (US dollars). It is the responsibility of the applicant to read this catalog and comply with all provisions and instructions.

Persons who have been convicted of a misdemeanor of a violent or sexual nature or any felony will be prohibited from professional health care practice in many jurisdictions. Northwestern Health Sciences University will deny admission to applicants with such convictions. The University therefore reserves the right to conduct a criminal background check on all applicants and enrolled students.

Entrance Requirements: Master of Acupuncture and Master of Oriental Medicine

Admission requirements for the Master of Acupuncture and Master of Oriental Medicine programs, in alignment with the Accreditation Commission for Acupuncture and Oriental Medicine standards include satisfactory completion of at least two academic years (60 semester credits or 90 quarter credits) at the bachelor's degree level in an institution accredited by an agency recognized by the US Secretary of Education. This education must be appropriate preparation for graduate-level work.

The following credits must be part of the 60 semester credits or 90 quarter credits required for entrance (Northwestern offers a number of these courses through the Undergraduate Studies Program):

<i>Subject</i>	<i>Minimum Semester Credits</i>	<i>Minimum Quarter Credits</i>
Humanities and Social Sciences: Philosophy, Religion, General Humanities, History, Art History, Music History, Psychology, Sociology, Anthropology, Political Science or Economics courses are acceptable. Business courses and studio courses in art or music may not be used to meet this requirement.	15	22.5
English: English, Composition, Literature or Speech	6	9
Psychology: General Psychology, Principals of Psychology or Introduction to Psychology	3	4.5
Biology: Animal/Vertebrate, General/Human Biology, Anatomy, Physiology or Microbiology are acceptable (no lab required)	3	4.5
Electives: Recommendations for elective courses include Human Anatomy, and other science courses, Chinese language, Asian studies, Macroeconomics, Marketing, Small Business Management, Public Speaking, Technical Writing and Medical Terminology.	33	49.5

These courses must be passed with a grade of C or better. All applicants must have earned a cumulative grade point average (GPA) of at least 2.5 on a 4.0 scale. To ensure acceptance, a more competitive grade point is desirable. All extenuating circumstances regarding admission into the program will be referred to the Admissions Committee for consideration.

**Entrance Requirements:
Herbal Medicine Certificate**

Admission into the Herbal Medicine Certificate program generally assumes prior completion of a Master degree or equivalent program in acupuncture.

Admission requirements for the Herbal Medicine Certificate include:

1. Current state acupuncture licensure and/or certification by the National Certification Commission for Acupuncture and Oriental Medicine (NCCAOM).
2. Ability to meet all the current admission requirements for the program's master's degree program in Oriental medicine. Applicants who do not meet these current admission requirements may apply for a waiver of this requirement. Additional information may be required from the applicant. The waiver may be granted by the Admissions Committee and/or at the discretion of the program Dean.
3. Meet all of the qualifications as stated in the section entitled "Qualifications".

Qualifications

Students must demonstrate sufficient maturity to undertake a health care profession, including the capacity to manage professional boundaries ethically and responsibly.

A student must possess the abilities listed below, with or without reasonable accommodation, for completion of the Master of Acupuncture or Master of Oriental Medicine degree program. Accommodation may be deemed unreasonable if it would compromise essential elements of the curriculum or would require a fundamental alteration to the nature of the program, service or activity.

1. Ability to apply acupuncture and accessory techniques, such as cupping, moxibustion and Tui Na, over the full range of a patient's body, utilizing appropriate physical positioning in relation to the patient, for periods of up to one hour without interruption. Such abilities require standing, leaning, reaching, stooping, kneading, grasping, twisting both body and wrists, and applying pressure with hands;
2. Ability to place acupuncture needles precisely in a patient's body and manipulate needles within a minute range of motion;
3. Ability to perform clinical techniques and procedures under the direct supervision of instructors and in the immediate presence of classmates, patients or family members of patients, within fixed time limits that reflect the

patient flow and delivery of services in a typical clinical environment;

4. Ability to work cohesively and harmoniously in a team of two or more students in the performance of assigned class and clinical activities;
5. Ability to see and hear, with or without reasonable accommodation, in order to interview patients, conduct patient intakes, elicit necessary diagnostic indicators, maintain patient records, provide instructions to patients, perform appropriate examinations, and provide routine patient treatment and safety services;
6. Ability to perform in all laboratory and clinical settings without posing a threat to herself/himself, to the safety and well-being of fellow students or patients;
7. Ability and willingness to receive acupuncture and accessory treatment. Much of the technical instruction in the programs requires reciprocal application of the techniques of acupuncture and Oriental medicine, such as acupuncture needling, moxibustion, Tui Na bodywork, etc. Receiving techniques is necessary in order for the student to learn proper procedures and to receive and provide learning feedback. Reciprocal application of techniques is also useful for developing sensitivity to patient needs. The College may temporarily excuse a student from receiving acupuncture or other modalities provided that specific medical contraindication information is provided by a licensed medical professional.

In addition to the abilities required of students in the Master of Acupuncture program (stated above), a student must possess the following abilities, with or without reasonable accommodation, for completion of the Master of Oriental Medicine degree program or the Herbal Medicine Certificate program:

1. Ability to identify the odors, tastes, colors and other physical properties of herbs and other organic and mineral substances utilized in Oriental medical therapy;
2. Ability to document and prepare herbal formulae, in accordance with Oriental medical therapeutic principles, including but not limited to reading, writing, chopping, reaching, mixing and grasping.

All students, with or without reasonable accommodation, must be able to carry out clinical assignments and diagnostic interpretation. Qualified persons with disabilities, with or without reasonable accommodation, must be able to pass oral, written and practical examinations and meet all of the program's clinical requirements.

It is in the best interest of both the student and the University to assess the degree of limitation caused by disability. However, the University will make the final determination of whether or not an individual meets all qualifications for study at the University. The University accommodations process is found under "Student Life." Additionally, questions regarding qualifications or accommodations should be directed to the Office of Student Affairs.

Responsibility of Applicant

It is the responsibility of the applicant to be aware of the entrance requirements and ensure that those requirements are met prior to enrollment. If the College determines at any time that requirements are not met in full, the student will not be allowed to enroll or to continue at Northwestern.

Minnesota Immunization Requirement

All students born in 1957 or later must comply with the Minnesota State College Immunization Law (Minn. Stat. 135A.14). An admitted student must show proof of DPT immunization within the past 10 years, as well as measles, mumps and rubella immunization after his/her first birthday. However, exemptions are permitted for philosophical or medical reasons. Further information is included with letters of acceptance to Northwestern.

Some clinical environments outside the University Clinic system may establish immunization and/or health screening requirements exceeding the Minnesota State College Immunization Law. In addition, some clinical environments outside the University Clinic system may not accept placement of interns who have not received or are not in the process of receiving certain immunizations and/or health screenings.

Application Procedure

The first step in the application process is to submit a fully completed application for admission. Applications are available online at <http://www.nwhealth.edu> or from the Office of Admissions. The application must include:

1. A properly completed applications for admission. Please type or print neatly;
2. An application processing fee of \$50 (US dollars). This fee is non-refundable;
3. Official transcripts from all colleges attended sent directly to the Office of Admissions at Northwestern Health Sciences University from those colleges. High school transcripts are not required. NOTE: Indicate on your application if your transcripts will be arriving under another name;

4. Names and addresses of two references. Northwestern will send character reference forms to those persons listed on the application as references. Those persons should complete the form and return it to the University. Relatives are not accepted as references;
5. A completed essay (see application form for instructions);
6. A current resumé.

Selection of Candidates

The Admissions Committee in general seeks to admit students who best suit the philosophies and goals of the University. Northwestern seeks to select students who have strong academic records and who demonstrate the motivational and personal characteristics suitable for a career in acupuncture and Oriental medicine. Willingness to provide service and a caring attitude are important characteristics of a successful practitioner. The University employs a rolling admissions process. Therefore, early application could increase the applicant's probability for acceptance. Students are strongly encouraged to apply at least nine to 12 months prior to the first day of their first academic term. Students interested in seeking transfer credit should apply as far in advance as possible, in order to assure that any required additional information may be obtained or challenge examinations completed prior to the first day of class. The University encourages campus visits for all applicants and reserves the right to require an interview.

Tuition Deposit Policy

Applicants will be notified in writing of the Admissions Committee's decision regarding their application following receipt and review of all information and materials. Upon notification of acceptance, a non-refundable tuition deposit of \$300 (US dollars) is required to secure a place in the program. The tuition deposit will be applied to the first trimester tuition.

The tuition deposit should be submitted as soon as possible after notification of acceptance since processing of financial aid is initiated only after receipt of the deposit.

First trimester students who have been accepted and paid their \$300 tuition deposit must pay the balance of their first trimester tuition on the first day of class. If the student has been awarded financial aid for the first trimester at Northwestern, then those funds will be credited against the student's Northwestern account. It is important to note that

because of the limited space available in each class, scheduling priorities and the cost of education, the institutional refund policy does not apply to the \$300 tuition deposit.

Transfer Students

A student wishing to transfer from another acupuncture or Oriental medicine program must:

1. Follow the same application procedures as a new student (see Admission Information above);
2. Forward all official transcripts from any other acupuncture or Oriental medicine program(s) you have attended;
3. Submit two letters of recommendation written by faculty members from the acupuncture or Oriental medicine program(s) you attended;
4. Provide a letter from the registrar at that acupuncture or Oriental medicine program indicating you are in good academic standing and could continue studies at that institution.

Transfer Policy

Courses may transfer to Northwestern if you have received grades of C or better. Transfer courses must have similar course content, name, length or objective, and correspond to courses within our acupuncture and Oriental medicine curriculum. The program Dean or designee will determine comparability.

All courses submitted to transfer must be applied for and posted to your Northwestern academic record no later than one year from matriculation.

A transfer student must complete at least the last three trimesters (one academic year) in order to graduate from Northwestern. Excessive student loan debt may be a factor in the student's ability to transfer. The Student Records and Financial Services Office will set upper limits of previous indebtedness.

Transfer policies are subject to change. Contact the Office of Admissions for current information.

Transfer Credit

At the discretion of the Dean, credit may be granted for equivalent courses taken and passed in another program. Considerations may include the institution offering the courses, the course description and/or syllabus for each course, the length of time since completing the course, and life experience. The student may be required to pass a challenge exam. Students have four options to complete graduation

requirements without taking every required course: Transfer Credit for equivalent courses, Transfer Credit for life experience, Waivers of Requirement, and/or CLEP Credits.

Transfer credit will only be granted for the maximum number of hours available from Northwestern-equivalent courses. For example, a 180-hour course in anatomy and physiology from another program will only be worth 135 hours at Northwestern, if the equivalent Northwestern course is 135 hours.

For Equivalent Courses

To be considered for transfer credits, courses must be equivalent to those offered at Northwestern based on an evaluation of the student's official transcript by the program's academic administration. A syllabus or other detailed course description and a copy of the catalog from the original institution may be required. Normally, the course must be an academic course from an accredited institution at the bachelor's degree level or better and passed within the past five years (occasionally, a course may need to have been passed within a shorter time frame) with a grade of C or better. A grade of C- is not acceptable if the awarding college states that the numerical equivalent is less than 2.0 (when A is 4.0). Accreditation must be from an agency recognized by the United States Department of Education. A transfer student from another acupuncture program must complete at least the last three full-time trimesters of resident study in the Northwestern program prior to graduation.

Equivalent Course/Life Experience

Transfer credit may be given to a student who has taken an equivalent course (which meets the above referenced standards) prior to the past five years, if life work or experience has enabled the student to use the skills learned in that course within the past five years. For example, current licensed health care providers would typically receive credit for most Western biomedicine courses taken more than five years ago, based on their life experience within the past five years.

Waivers of Requirement

Occasionally, a waiver of requirement may be granted in lieu of a required course or course sequence. Credit will be given according to the above noted guidelines for maximum credit/hours allowed. Normally, a waiver of requirement is based on educational or professional experience that may not be able to be documented to the extent required for transfer credit. A challenge exam may be required of the student to demonstrate competency in the subject involved.

CLEP Credits (College Level Examination Program)

A maximum of 30 semester CLEP credits can be transferred into the program. These credits must first be transferred to another undergraduate degree-granting institution and appear on the student's respective transcript before these CLEP credits can be considered for transfer into the program.

Non-Program Students

Non-program students are welcome to apply to take certain courses and typically must meet both the course and admissions requirements, and must have completed the prerequisites for the courses for which they are applying. Those persons interested in applying should contact the Office of Admissions for further details. A plan of study, including purpose and rationale, may be required as part of the application process. Approval may be granted by the Admissions Committee and/or at the discretion of the Dean, subject to space availability.

International Students

Northwestern Health Sciences University welcomes the diversity that international students bring to the University community. The University is a non-residential campus. Therefore, no housing is available to students, foreign or otherwise. Individuals in F-1 student status are not eligible to seek employment off campus. All classes at Northwestern are taught in English

Matriculants from foreign countries must meet the same educational requirements as students matriculating from the United States. The student should note the entrance requirement and application procedure sections. The student must also fulfill the following:

1. Follow the same application procedures as a new student (see previous section in catalog);
2. Verify competency in English. All classes at Northwestern are taught in English.

A student may verify competency in English in the following manner:

- a. Students from English-speaking countries (excluding the Canadian province of Quebec) may include with their application a copy of their birth certificate. Or these applicants may complete an English Competency Verification Form, which can be obtained from the Office of Admissions.
- b. All other foreign applicants (including students from the Canadian province of Quebec) must complete a TOEFL® (Test of English as a Foreign Language™) examination. Applicants completing the paper-based examination must earn a score of 540 or higher. Applicants completing the computer-based examination must earn a score of 83 or higher. Results of the TOEFL® must be sent directly to Northwestern from the testing agency. TOEFL information can be obtained from: TOEFL Services, Educational Testing Services, CN 6154, Princeton, NJ 08541-6154, USA

We reserve the right to request proof of English proficiency of any applicant.

3. Provide evidence of having financial resources to complete a minimum of one year of education. Official bank statements indicating sufficient funds is required;
4. Have foreign transcripts evaluated by WES: World Education Services, Inc., PO Box 5087, Bowling Green Station, New York, NY 10274, USA; phone: (212) 966-6311. Official copies of the course-by-course evaluation must be forwarded directly to both Northwestern and the student. Contact the Office of Admissions for a WES application form or names of other accepted transcript evaluation services.

As an international student, you must be aware of the licensure requirements in the country in which you wish to practice. We recommend you contact the chiropractic licensing board in your country for that information.

ACADEMIC POLICY

The following information provides a summary of our Academic Policies. The official policies are found in the University Student Handbook, which is available online at <http://www.nwhealth.edu>. The University Student Handbook is updated more frequently than the University catalog. In all cases, the Academic Policies as stated in the current University Student Handbook will be followed.

Trimester Credits

The Academic calendar includes fall, winter and summer trimesters of 15 weeks each. In general, one credit represents one lecture hour, two laboratory hours or two clinical hours per week.

Attendance Policy

Students are required to fulfill all course responsibilities, including class attendance, which are described by faculty in the course syllabi. Students are referred to the Clinic Handbook for Internship and Observation attendance policies.

Academic Evaluation and Grades

Final grades in each subject are issued at the end of each trimester and reflect a student's performance in some combination of the following: comprehensive final examinations; announced tests, quizzes, assignments, classroom and laboratory work; participation in and contribution to class discussions; and attendance. Grading criteria are specified in each course syllabus.

The majority of courses, with a few exceptions, are assigned letter grades of either A, B, C, D, or F. The exceptions are assigned either an S for Satisfactory or a U for Unsatisfactory. The criteria for assignment of grades are contained in each course syllabus. The grades of S/U are not included in determining grade point average (GPA). The final grade of U (Unsatisfactory) is considered to be a grade of failure in the course.

Students who complete all the work assigned in a course are graded as follows: A, B, C, or D (excellent, above average, average or minimal achievement, respectively). Honor grade points (for calculating grade point averages) are awarded on the scale starting with four points for an A and one point for a D. Students who fail to achieve minimal competency are graded with F for failure. An incomplete (I) indicates that the full work of the course has not been completed because of illness or some cause beyond the student's control.

In all didactic classes, the following percentages will be used to determine grades A - F:

A = 100-92 percent
B = 91-84 percent
C = 83-76 percent
D = 75-68 percent
F = below 68 percent

Clinic performance is evaluated each trimester and is graded as S for Satisfactory or U for Unsatisfactory. Specific details are listed in the Clinic Handbook. In general, students must receive a score of three or higher (on a five-point scale) for each clinical criteria in order to receive clinic credit for that trimester. Students with criteria scores less than three will need to complete a remediation process in order to receive credit. Failure to meet the clinical internship/observation attendance requirements, as stated in the Clinic Handbook, will result in a grade of U (Unsatisfactory). Students must pass clinical competency exams prior to beginning supervised clinical practice and prior to graduation. Other competency exams may be administered at various stages throughout clinic.

Academic Honors

Students receiving a grade point average (GPA) of 3.50 or better are placed on the Dean's List. Academic honors are determined according to the following grade point levels:

<u>Honor</u>	<u>GPA Range</u>
Cum laude	3.50 – 3.69
Magna cum laude	3.70 – 3.89
Summa cum laude	3.90 – 4.00

Academic Standing

Students are considered in good academic standing unless they are currently on academic probation, dismissed or enrolled as a Special Student. Students must be in good academic standing to serve as Student Senate officers or as officers of approved student organizations. Students in good academic standing may progress toward degree completion.

Regulations Concerning Probationary Status

Probation is indicative of substandard achievement. Students are placed on probation when:

- Their cumulative grade point average (GPA) falls below 2.0;
- They fail one course.

The University Student Handbook provides details pertaining to probation, dismissal, review procedures and special student status.

GRADUATION

Graduation Requirements

The Master of Acupuncture or Master of Oriental Medicine degree is granted to those candidates who have:

1. Completed the required course of study, of which the last academic year has been in residence at Northwestern Health Sciences University;
2. Demonstrated competency in clinic and completed internship requirements;
3. Earned a cumulative grade point average (GPA) of 2.0 or better;
4. Fulfilled all financial obligations to the University;
5. Been recommended for graduation by the faculty.

Graduation Rate

On average, more than 77 percent of students graduate within five years of matriculation.

CERTIFICATION AND LICENSURE

Graduates of Northwestern's master's degree programs exceed the eligibility requirements for the comprehensive national certification programs offered by the National Certification Commission for Acupuncture and Oriental Medicine (NCCAOM).

Graduates of the Master of Acupuncture program are eligible to take the acupuncture certification program exam modules which include Foundations of Oriental Medicine, Acupuncture with Point Location, and Biomedicine.

Graduates of the Master of Oriental Medicine program are eligible to take the Oriental Medicine certification program exam modules which include the three listed above plus Chinese Herbology. Students agree to provide Northwestern with copies of their NCCAOM examination results for use in program assessment.

Professional licensure requirements for the practice of acupuncture and Oriental medicine vary by jurisdiction. Students should not rely upon staff descriptions or statements regarding licensure requirements and need to consult directly with the licensure board for the profession in the state or location in which they intend to practice. In Minnesota, eligibility for acupuncture licensure is based upon active certification by the NCCAOM in acupuncture. Additional information about Minnesota acupuncture licensure may be obtained from the Minnesota Board of Medical Practice, University Park Plaza, 2829 University Ave. SE, Suite 400, Minneapolis, MN 55414-3246.

Receipt of a degree from Northwestern Health Sciences University does not guarantee a license or certification to practice. States vary in the specific courses of study required and/or state-based testing for certification or licensing. Students are responsible for confirming with the appropriate board(s) to determine the specific requirements for the state(s) in which they intend to practice and/or seek employment.

THE PROGRAMS

Master of Oriental Medicine

The curriculum for the professional Master of Oriental Medicine program provides comprehensive education and training in the following areas:

- Cultural and philosophical foundations of traditional Chinese medicine;
- Traditional Chinese medical concepts (physiology, pathology, diagnostics, point location and point energetics);
- Acupuncture treatment principles and practical skills;
- Tui Na;
- Traditional Chinese herbal medicine and dietary therapy;
- Related studies, including introductory Chinese language skills, ethics and practice management;
- Qi Development;
- Nutrition;
- Biomedical clinical sciences to a level required for competence in contemporary practice of acupuncture and Oriental medicine;
- Clinical internship;
- Clinical herbal internship.

Clinical requirements include a minimum of 150 hours of observation/assistantship and 720 hours of supervised clinical practice.

Master of Acupuncture

The curriculum for the professional Master of Acupuncture program is similar to that of the Oriental Medicine program but does not include herbal studies.

Clinical requirements include a minimum of 150 hours of observation/assistantship and 525 hours of supervised clinical practice.

Herbal Medicine Certificate

The curriculum for the Herbal Medicine Certificate program provides comprehensive herbal education and training in the same areas listed under the Master of Oriental Medicine.

Clinical requirements include 240 clinic internship hours, which consists of both herbal medicine and acupuncture internship hours.

CLINICAL EXPERIENCE

Northwestern students begin clinical training in their second trimester with Clinical Observation/Assistantship. Clinical internship begins in the fifth trimester and takes place in one of the University's on-campus clinics. Subsequent supervised internships may include assignment in other clinics (i.e. public service organizations and/or medical facilities) which have established relationships with Northwestern.

Clinic interns perform all aspects of patient care relevant to their degree program. Interns are closely supervised and evaluated by clinical faculty members and are progressively given more responsibility as their competence increases. The low intern-to-supervisor ratio ensures a high degree of personal attention in both acupuncture and/or Oriental medicine. By the end of their internship, students are ready to enter private practice.

PROGRAM CHANGES

Northwestern Health Sciences University reserves the right to change or discontinue academic programs at the University's discretion.

COLLEGE OF ACUPUNCTURE AND ORIENTAL MEDICINE COURSE LIST

PROFESSIONAL MASTER'S DEGREE in ACUPUNCTURE

First Year

TRIMESTER 1 (Fall and Winter)

Course Number	Title	Didactic Credits	Lab Credits	Clinic Credits	Contact Hours
AAC4025	Acupuncture Point Location 1		2		60
AWM3011	Anatomy and Physiology 1	4	.5		75
ACH3010	Introduction to Chinese Language	1			15
AWM1500	Medical Terminology	1			15
ACH3034	Tai Ji		.5		15
AAC3214	TCM Pathology and Diagnosis 1	5			75
TOTALS: Trimester 1, 1 st year		11	3	0	255

TRIMESTER 2 (Winter and Summer)

Course Number	Title	Didactic Credits	Lab Credits	Clinic Credits	Contact Hours
AAC4026	Acupuncture Point Location 2		2.5		75
AWM3012	Anatomy and Physiology 2	2	.5		45
ACL3032	Clinical Observation			1	30
ARS4040	Introduction to Ethics in Health Care	1			15
AAC3215	TCM Pathology and Diagnosis 2	4			60
TOTALS: Trimester 2, 1 st year		7	3	1	225

TRIMESTER 3 (Summer and Fall)

Course Number	Title	Didactic Credits	Lab Credits	Clinic Credits	Contact Hours
AAC4230	Acupuncture Treatment Strategy	3			45
ACL3033	Clinical Observation			1	30
AAC3216	Diagnostic Analysis in Chinese Medicine	1			15
ARS6040	Foundations of Evidence-Informed Practice	2			30
AAC4257	Medical Asepsis and Risk Management for Acupuncturists		.4		12
AWM4036	Needling Anatomy	2	.5		45
AAC4255	Needling Techniques 1		1.6		48
AWM4031	Pathophysiology 1	2			30
TOTALS: Trimester 3, 1 st year		10	2.5	1	255

Second Year**TRIMESTER 4 (Fall and Winter)**

Course Number	Title	Didactic Credits	Lab Credits	Clinic Credits	Contact Hours
AAC4250	Accessory Techniques		1.5		45
ACL3034	Clinical Observation			1	30
AWM0150	CPR		.13		4
ARS5060	Interactive Skills	1			15
AAC4256	Needling Techniques 2		2.5		75
AWM4032	Pathophysiology 2	2			30
AAC4030	Pre-Clinical Workshop	3			45
AWM4041	Western Medical Screening	2	.5		45
TOTALS: Trimester 4, 2 nd year		8	4.63	1	289

TRIMESTER 5 (Winter and Summer)

Course Number	Title	Didactic Credits	Lab Credits	Clinic Credits	Contact Hours
AAC5151	Acupuncture Clinical Medicine 1	3			45
AWM4042	Charting, Documentation & Legal Issues (fka WMS2)	1			15
ACL5051	Clinic Seminar 1	1			15
ACL5065	Clinical Internship			4	120
ACL3035	Clinical Observation			1	30
AWM6061	Topics in Cardiopulmonary Health (fka WCM1)	1.5			22.5
AWM6062	Topics in Orthopedic Health (fka WCM1)	1.5			22.5
AHB5130	Traditional Oriental Food Therapy	2			30
AAC5060	Tui Na		1		30
TOTALS: Trimester 5, 2 nd year		10	1	5	330

TRIMESTER 6 (Summer and Fall)

Course Number	Title	Didactic Credits	Lab Credits	Clinic Credits	Contact Hours
AAC5152	Acupuncture Clinical Medicine 2	3			45
AAC4245	Advanced Needling Techniques		1		30
ACL5052	Clinic Seminar 2	1			15
ACL5066	Clinical Internship			4	120
ACL3036	Clinical Observation			1	30
AWM5082	Pharmacology for Chinese Medical Practitioners 1	1			15
AWM5083	Pharmacology for Chinese Medical Practitioners 2	2			30
AWM6063	Topics in Neurological Health (fka WCM4)	3			45
TOTALS: Trimester 6, 2 nd year		10	1	5	330

Third Year**TRIMESTER 7 (Fall and Winter)**

Course Number	Title	Didactic Credits	Lab Credits	Clinic Credits	Contact Hours
AAC5153	Acupuncture Clinical Medicine 3	3			45
ACL5053	Clinic Seminar 3	1			15
ACL5067	Clinical Internship			4	120
AAC5291	Musculoskeletal Treatment		1.5		45
AAC6220	Nei Jing	2			30
ARS5091	Practice Management 1	2			30
AWM6064	Topics in Pediatric, Obstetric and Women's Health (fka WCM2)	3			45
TOTALS: Trimester 7, 3 rd year		11	1.5	4	330

TRIMESTER 8 (Winter and Summer)

Course Number	Title	Didactic Credits	Lab Credits	Clinic Credits	Contact Hours
AAC6110	Acupuncture Review and Synthesis	2			30
ACL5054	Clinic Seminar 4	1			15
ACL5068	Clinical Internship			4	120
ACL6060	Clinical Internship (Acupuncture only)			1.5	45
AWM5060	Nutrition	3			45
ARS5092	Practice Management 2	2			30
AWM6065	Topics in Digestive, Endocrine and Male Urogenital Health (fka WCM3)	3			45
TOTALS: Trimester 8, 3 rd year		11		5.5	330
TOTALS FOR ENTIRE PROGRAM		78	16.63	22.5	2,344
TOTAL CREDITS		117.13			
TOTAL HOURS					2,344

PROFESSIONAL MASTER'S DEGREE in ORIENTAL MEDICINE

First Year

TRIMESTER 1 (Fall and Winter)

Course Number	Title	Didactic Credits	Lab Credits	Clinic Credits	Contact Hours
AAC4025	Acupuncture Point Location 1		2		60
AWM3011	Anatomy and Physiology 1	4	.5		75
ACH3010	Introduction to Chinese Language	1			15
AWM1500	Medical Terminology	1			15
ACH3034	Tai Ji		.5		15
AAC3214	TCM Pathology and Diagnosis 1	5			75
TOTALS: Trimester 1, 1 st year		11	3		255

TRIMESTER 2 (Winter and Summer)

Course Number	Title	Didactic Credits	Lab Credits	Clinic Credits	Contact Hours
AAC4026	Acupuncture Point Location 2		2.5		75
AWM3012	Anatomy and Physiology 2	2	.5		45
ACL3032	Clinical Observation			1	30
ARS4040	Introduction to Ethics in Health Care	1			15
AAC3215	TCM Pathology and Diagnosis 2	4			60
TOTALS: Trimester 2, 1 st year		7	3	1	225

TRIMESTER 3 (Summer and Fall)

Course Number	Title	Didactic Credits	Lab Credits	Clinic Credits	Contact Hours
AAC4230	Acupuncture Treatment Strategy	3			45
ACL3033	Clinical Observation			1	30
AAC3216	Diagnostic Analysis in Chinese Medicine	1			15
ARS6040	Foundations of Evidence-Informed Practice	2			30
AHB4021	Materia Medica 1	4			60
AAC4257	Medical Asepsis and Risk Management for Acupuncturists		.4		12
AWM4036	Needling Anatomy	2	.5		45
AAC4255	Needling Techniques 1		1.6		48
AWM4031	Pathophysiology 1	2			30
TOTALS: Trimester 3, 1 st year		14	2.5	1	315

Second Year**TRIMESTER 4 (Fall and Winter)**

Course Number	Title	Didactic Credits	Lab Credits	Clinic Credits	Contact Hours
AAC4250	Accessory Techniques		1.5		45
ACL3034	Clinical Observation			1	30
AWM0150	CPR		.13		4
ARS5060	Interactive Skills	1			15
AHB4022	Materia Medica 2	5			75
AAC4256	Needling Techniques 2		2.5		75
AWM4032	Pathophysiology 2	2			30
AAC4030	Pre-Clinical Workshop	3			45
AWM4041	Western Medical Screening	2	.5		45
TOTALS: Trimester 4, 2 nd year		13	4.63	1	364

TRIMESTER 5 (Winter and Summer)

Course Number	Title	Didactic Credits	Lab Credits	Clinic Credits	Contact Hours
AAC5151	Acupuncture Clinical Medicine 1	3			45
AWM4042	Charting, Documentation & Legal Issues (fka WMS2)	1			15
ACL5051	Clinic Seminar 1	1			15
ACL5065	Clinical Internship			4	120
ACL3035	Clinical Observation			1	30
AHB5035	Herbal Formulas and Strategies 1	4			60
AWM6061	Topics in Cardiopulmonary Health (fka WCM1)	1.5			22.5
AWM6062	Topics in Orthopedic Health (fka WCM1)	1.5			22.5
AHB5130	Traditional Oriental Food Therapy	2			30
AAC5060	Tui Na		1		30
TOTALS: Trimester 5, 2 nd year		14	1	5	390

TRIMESTER 6 (Summer and Fall)

Course Number	Title	Didactic Credits	Lab Credits	Clinic Credits	Contact Hours
AAC5152	Acupuncture Clinical Medicine 2	3			45
AAC4245	Advanced Needling Techniques		1		30
ACL5052	Clinic Seminar 2	1			15
ACL5066	Clinical Internship			4	120
ACL3036	Clinical Observation			1	30
AHB5036	Herbal Formulas and Strategies 2	5			75
AWM5082	Pharmacology for Chinese Medical Practitioners 1	1			15
AWM5083	Pharmacology for Chinese Medical Practitioners 2	2			30
AWM6063	Topics in Neurological Health (fka WCM4)	3			45
TOTALS: Trimester 6, 2 nd year		15	1	5	405

Third Year
TRIMESTER 7 (Fall and Winter)

Course Number	Title	Didactic Credits	Lab Credits	Clinic Credits	Contact Hours
AAC5153	Acupuncture Clinical Medicine 3	3			45
ACL5053	Clinic Seminar 3	1			15
ACL5067	Clinical Internship			4	120
AHB5091	Herbal Clinical Medicine 1	3			45
AAC5291	Musculoskeletal Treatment		1.5		45
AAC6220	Nei Jing	2			30
ARS5091	Practice Management 1	2			30
AWM6064	Topics in Pediatric, Obstetric and Women's Health (fka WCM2)	3			45
TOTALS: Trimester 7, 3 rd year		14	1.5	4	375

TRIMESTER 8 (Winter and Summer)

Course Number	Title	Didactic Credits	Lab Credits	Clinic Credits	Contact Hours
AAC6110	Acupuncture Review and Synthesis	2			30
ACL5054	Clinic Seminar 4	1			15
ACL5068	Clinical Internship			4	120
ACL6088	Clinical Internship (Oriental Medicine only)			2	45
AHB5092	Herbal Clinical Medicine 2	3			60
AWM5060	Nutrition	3			45
ARS5092	Practice Management 2	2			30
AWM6065	Topics in Digestive, Endocrine and Male Urogenital Health (fka WCM3)	3			45
TOTALS: Trimester 8, 3 rd year		14		6	390

TRIMESTER 9 (Summer and Fall)

Course Number	Title	Didactic Credits	Lab Credits	Clinic Credits	Contact Hours
ACL5055	Clinic Seminar 5	1			15
ACL5069	Clinical Internship			4	120
ACL6089	Clinical Internship (Oriental Medicine Only)			2	60
AHB6060	Herbal Classics	3			45
AHB6050	Herbal Dispensary Management	1			15
AHB6040	Herbal Review and Synthesis	4			60
TOTALS: Trimester 9, 3 rd year		9		6	315
TOTALS FOR ENTIRE PROGRAM		111	16.63	29	3,034
TOTAL CREDITS		156.63			
TOTAL HOURS		3,034			

HERBAL MEDICINE CERTIFICATE

Course Number	Course Title	Didactic Credits	Lab Credits	Clinic Credits	Contact Hours
TRIMESTER 1					
AHB4021	Materia Medica 1	4			60
AAC4257	Medical Asepsis and Risk Management for Acupuncturists		.4		12
TRIMESTER 2					
AHB4022	Materia Medica 2	5			75
TRIMESTER 3					
AHB5035	Herbal Formulas and Strategies 1	4			60
TRIMESTER 4					
AHB5036	Herbal Formulas and Strategies 2	5			75
TRIMESTER 5					
AHB5091	Herbal Clinical Medicine 1	3			45
TRIMESTER 6					
AHB5092	Herbal Clinical Medicine 2	3			45
TRIMESTER 7					
ACL5055	Clinic Seminar 5	1			15
AHB6040	Herbal Review and Synthesis	4			60
AHB6060	Herbal Classics	3			45
AHB6050	Herbal Dispensary Management	1			15
TOTALS FOR ENTIRE PROGRAM		33	.4		507

In addition to the courses listed above, students in the herbal medicine certificate program must either take a CPR course at Northwestern Health Sciences University or show proof of having taken a CPR course at the Provider level, prior to starting clinic internship hours.

Students in the herbal medicine certificate program must complete 240 hours (8 credits) of clinic internship, consisting of six 60-hour shifts and comprised of both herbal and acupuncture internship hours. One designated 60-hour shift of herbal internship must be taken as part of the 240 hours.

COURSE DESCRIPTIONS

AAC4250 Accessory Techniques

1.5 credits (45 hours):
45 laboratory hours
Prerequisites: Acupuncture Point Location 1 & 2; Anatomy and Physiology 1 & 2; Medical Asepsis and Risk Management for Acupuncturists

Students develop skills in applying common accessory techniques used by modern acupuncturists, including cupping, guasha, plum-blossom, bleeding, moxibustion, auricular acupuncture and electro-acupuncture. Emphasis is placed on safe practice techniques and risk management.

AAC5151 Acupuncture Clinical Medicine 1

3 credits (45 hours): 45 lecture hours
Prerequisites: Acupuncture Point Location 1 & 2; Acupuncture Treatment Strategy; Anatomy and Physiology 1 & 2; Diagnostic Analysis in Chinese Medicine; Needling Techniques 1 & 2; TCM Pathology and Diagnosis 1 & 2

In this first course of a three-course sequence in Acupuncture Clinical Medicine, students learn the traditional Chinese method of analyzing disease, and determining acupuncture and accessory treatment through differential diagnosis of main presenting symptoms.

AAC5152 Acupuncture Clinical Medicine 2

3 credits (45 hours): 45 lecture hours
Prerequisites: Acupuncture Point Location 1 & 2; Acupuncture Treatment Strategy; Anatomy and Physiology 1 & 2; Diagnostic Analysis in Chinese Medicine; Needling Techniques 1 & 2; TCM Pathology and Diagnosis 1 & 2

The second class of this three-course sequence.

AAC5153 Acupuncture Clinical Medicine 3

3 credits (45 hours): 45 lecture hours
Prerequisites: Acupuncture Point Location 1 & 2; Acupuncture Treatment Strategy; Anatomy and Physiology 1 & 2; Diagnostic Analysis in Chinese Medicine; Needling Techniques 1 & 2; TCM Pathology and Diagnosis 1 & 2

The final class of this three-course sequence.

AAC4025 Acupuncture Point Location 1

2 credits (60 hours):
60 laboratory hours
Corequisite: Anatomy and Physiology 1

The first of a two-course laboratory sequence in point location. Students learn acupuncture points one channel at a time, focusing on location techniques designed to ensure maximum accuracy in various body regions and various body types. The Point Location sequence is taught in an interactive manner with visually assisted demonstrations led by the instructor, coordinated group exercises and supervised hands-on location with student pairs.

AAC4026 Acupuncture Point Location 2

2.5 credits (75 hours):
75 laboratory hours
Prerequisites: Acupuncture Point Location 1; Anatomy and Physiology 1
Corequisite: Anatomy and Physiology 2

The second course of a two-course laboratory sequence in point location. Students complete the meridian-by-meridian location of points begun in Acupuncture Point Location 1 and go on to locate Extra Points. To consolidate their knowledge, students re-examine locations of groups of major points based on specific anatomical regions, classical category and general function.

AAC6110 Acupuncture Review and Synthesis

2 credits (30 hours): 30 lecture hours
Prerequisites: Accessory Techniques; Acupuncture Clinical Medicine 1, 2 & 3; Acupuncture Point Location 1 & 2; Acupuncture Treatment Strategy; Advanced Needling; Anatomy and Physiology 1 & 2; Clinical Internship (300 hours); Clinical Observation (100 hours); Diagnostic Analysis in Chinese Medicine; Introduction to Ethics in Health Care; Interactive Skills; Needling Anatomy; Needling Techniques 1 & 2; Musculoskeletal Treatment; Pathophysiology 1 & 2; Pre-Clinical Workshop; Tui Na; TCM Pathology and Diagnosis 1 & 2;; Topics in Cardiopulmonary Health, Topics in Orthopedics, Topics in Orthopedic Health, Topics in Neurological Health, Topics in Pediatric, Obstetric and Women's Health, Topics in Digestive, Endocrine and Male Urogenital Health, Western Medical Screening 1 & 2

This class emphasizes clinical problem-solving skills. Lectures and other learning experiences allow students to improve areas of weakness, consolidate clinical skills, integrate knowledge from the various disciplines of the program and achieve their fullest potential before graduation.

AAC4230 Acupuncture Treatment Strategy
 3 credits (45 hours): 45 lecture hours
 Prerequisites: Acupuncture Point Location 1 & 2; TCM Pathology and Diagnosis 1 & 2
 Students explore the classical theories of meridian and point function and apply these concepts within the framework of modern Chinese clinical experience, assembling point prescriptions for specific symptoms and TCM patterns.

AAC4245 Advanced Needling Techniques
 1 credit (30 hours): 30 laboratory hours
 Prerequisites: Accessory Techniques; Acupuncture Point Location 1 & 2; Acupuncture Treatment Strategy; Anatomy and Physiology 1 & 2; Diagnostic Analysis in Chinese Medicine; Needling Anatomy; TCM Pathology and Diagnosis 1 & 2; Medical Asepsis and Risk Management for Acupuncturists; Needling Techniques 1 & 2.
 Students continue hands-on skill development in manipulation techniques covered in previous classes and learn more advanced techniques as determined by the instructor.

AWM3011 Anatomy and Physiology 1
 4.5 credits (75 hours): 60 lecture hours; 15 laboratory hours
 This class is the first course in a two-course sequence concerning the anatomy and physiology of the human body, from a systems-based biomedical perspective. Students will learn the structure and function of the skeletal, muscular, nervous, integumentary systems and sensory organs. The laboratory experience will enhance student understanding of surface anatomy, in order to facilitate the study of point location. The laboratory experience may include observation of human cadavers.

AWM3012 Anatomy and Physiology 2
 2.5 credits (45 hours): 30 lecture hours; 15 laboratory hours
 Prerequisite: Anatomy and Physiology 1
 This class is the second course in a two-course sequence concerning the anatomy and physiology of the human body, from a systems-based biomedical perspective. Students will learn the structure and function of the cardiovascular, respiratory, gastrointestinal, genitourinary, endocrine, reproductive and immune systems. The laboratory experience may include observation of human cadavers.

AWM4042 Charting, Documentation & Legal Issues (fka WMS2)
 1 credit (15 hours): 15 lecture hours;
 Prerequisites: Anatomy and Physiology 1 & 2; Pathophysiology 1 & 2; Western Medical Screening
 Students will learn skills in order to communicate with other allied health care members regarding a patient's condition (including making referrals, using appropriate medical abbreviations and terminology) and demonstrate accurate charting practices, including documentation of a patient visit. Some legal issues will be addressed.

ACL5051 Clinic Seminar 1
 1 credit (15 hours): 15 lecture hours

ACL5052 Clinic Seminar 2
 1 credits (15 hours): 15 lecture hours

ACL5053 Clinic Seminar 3
 1 credit (15 hours): 15 lecture hours

ACL5054 Clinic Seminar 4
 1 credit (15 hours): 15 lecture hours

ACL5055 Clinic Seminar 5 (Oriental Medicine only)
 1 credit (15 hours): 15 lecture hours
 Corequisite: (For all Clinic Seminars) Clinical Internship
 Students participate in a variety of special topic seminars and programs [e.g. advanced diagnosis, public health, neurological studies, additional herbal studies (Oriental Medicine only)]. Students take the clinic seminars as scheduled during the Trimester 5 to Trimester 9 terms.

ACL5065- Clinical Internship
ACL5069 4 credits (120 hours): 120 clinical hours (repeatable)
 Prerequisites: Accessory Techniques; Acupuncture Point Location 1 & 2; Anatomy and Physiology 1 & 2; Introduction to Ethics in Health Care; Diagnostic Analysis in Chinese Medicine; Interactive Skills; Needling Anatomy; Needling Techniques 1 & 2; Western Medical Screening ; Pathophysiology 1 & 2; Interactive Skills; Pre-Clinical Workshop; TCM Pathology and Diagnosis 1 & 2; passing scores on all pre-clinical entrance examinations
 Corequisites: Charting, Documentation & Legal Issues (fka WMS2) and a minimum of 60 hours of clinic observation

Under direct supervision of a licensed clinical faculty supervisor, interns perform patient interviews, assessment, treatment-planning, treatment and outcome evaluation in both the on-campus clinics as well as the off-site clinics. Students are required to do at least one clinic shift in an off-site clinic. Oriental medicine students are required to do at least one clinic shift (60 hours) of herbal internship.

ACL6060 Clinical Internship (Acupuncture only)
 1.5 credits (45 hours): 45 clinical hours
 Prerequisites: Same as ACL5040 Clinical Internship

This course is taken in the final term of the acupuncture only course of study in order to complete the clinic hours required to graduate.

**ACL6088-
ACL6089** **Clinical Internship (Oriental Medicine only)**
2 credits (60 hours):
60 clinical hours (repeatable)
Prerequisites: Same as ACL5040
Clinical Internship

This course is taken in the final two terms of the Oriental Medicine course of study in order to complete the clinic hours required to graduate.

**ACL3032-
ACL3036** **Clinical Observation**
1 credit (30 hours):
30 clinical hours (repeatable)
Prerequisites: Anatomy and Physiology 1;
TCM Pathology and Diagnosis 1

Clinical Observation consists of students observing licensed acupuncturists, instructors, supervisors and upper level students in a variety of settings, including classroom and on-campus clinics. Observation in later trimesters may be completed at pre-approved outside clinical locations. Students may not observe other students who are at a lower level of study.

AWM0150 **CPR (Cardiopulmonary Resuscitation)**
.13 credit (4 hours): 4 laboratory hours

This course will train students to respond to, assess and manage cardiac and respiratory emergencies using basic life support skills and automatic external defibrillation.

AAC3216 **Diagnostic Analysis in Chinese Medicine**
1 credit (15 hours): 15 lecture hours
Prerequisites: TCM Pathology and
Diagnosis 1 & 2

This course continues the study of the Four Examinations. Focusing on inquiry, an in-depth analysis of signs and symptoms is undertaken with an emphasis on the development of diagnostic skills.

ARS6040 **Foundations of Evidence-Informed Practice**
2 credits (30 hours): 22.5 lecture hours;
7.5 other hours

This course uses a blended approach of classroom and online presentations and activities to introduce students to the basic principles of evidence-informed practice (EIP). EIP is an approach that integrates clinical findings, patient preferences, research and clinical experience (all important types of evidence) into the process of health care delivery. Students learn the strengths and limitations of each element of the model and how to use them together to enhance clinical decision-making and patient outcomes.

AHB6060 **Herbal Classics**
3 credits (45 hours): 45 lecture hours
Prerequisites: Herbal Formulas and
Strategies 1 & 2; Materia Medica 1 & 2

Students explore the classic works of Chinese herbal medicine, such as the Shang Han Lun and the Jin Gui Yao Lue.

AHB5091 **Herbal Clinical Medicine 1**
3 credits (45 hours): 45 lecture hours
Prerequisites: Materia Medica 1 & 2; Herbal
Formulas and Strategies 1 & 2

This class is the first course in a two-course sequence providing a foundation for the clinical practice of Chinese herbal medicine. Students learn the Chinese method of analyzing disease and determining treatment by the differential diagnosis of main presenting symptoms in internal medicine. Case studies are presented to reinforce lecture material.

AHB5092 **Herbal Clinical Medicine 2**
3 credits (45 hours): 45 lecture hours
Prerequisites: Materia Medica 1 & 2; Herbal
Formulas and Strategies 1 & 2; Herbal
Clinical Medicine 1

This class is the second course in a two-course sequence providing a foundation for the clinical practice of Chinese herbal medicine in non-internal medicine.

AHB6050 **Herbal Dispensary Management**
1 credit (15 hours): 15 lecture hours
Prerequisites: Materia Medica 1 & 2; Herbal
Formulas and Strategies 1 & 2; Herbal
Clinical Medicine 1 & 2

Students build on the skills they have developed throughout their herbal program and learn the details of operating a working herbal dispensary.

AHB5035 **Herbal Formulas and Strategies 1**
4 credits (60 hours): 60 lecture hours
Prerequisites: Materia Medica 1 & 2

This class is the first course in a two-course sequence concerning the principles of classical herbal formulation and therapeutic functions. Major formulas currently used in Chinese medicine will be covered. Students will learn to analyze a formula according to the classical hierarchy of its ingredients and will learn to modify it to suit specific needs. Students will learn the therapeutic actions and clinical indications of each formula, including prohibitions and contraindications.

AHB5036 **Herbal Formulas and Strategies 2**
5 credits (75 hours): 75 lecture hours
Prerequisites: Materia Medica 1; Herbal
Formulas and Strategies 1

This class is the second course in a two-course sequence concerning the principles of classical herbal formulation and therapeutic functions.

AHB6040 Herbal Review and Synthesis
4 credits (60 hours): 60 lecture hours
Prerequisites: Materia Medica 1 & 2; Herbal Formulas and Strategies 1 & 2; Herbal Clinical Medicine 1 & 2

This class is designed to consolidate the knowledge acquired in earlier herbal classes and to extend the student's mastery of Chinese herbal medicine to include the finer points of diagnosis, formulation and modification. Students will learn to construct treatment plans for complicated, difficult or unusual cases, while focusing on their individual learning needs.

ARS5060 Interactive Skills
1 credit (15 hours): 15 lecture hours
Prerequisite: Introduction to Ethics in Health Care

This experiential course emphasizes development of positive patient-practitioner interaction, listening and communication skills.

ARS4040 Introduction to Ethics in Health Care
1 credit (15 hours): 15 lecture hours

This course will introduce students to basic principles in medical ethics, specifically pertaining to appropriate behavior within the therapeutic relationship, the NCCAOM code of ethics and the Minnesota legal statutes governing Oriental medicine practice in this state.

AHB4021 Materia Medica 1
4 credits (60 hours): 60 lecture hours

This class is the first course in a two-course sequence examining the major single herbs of the Chinese herbal pharmacopoeia. Students learn the flavor, Qi, actions, clinical indications, dosage and contraindications of the major herbs used in modern clinical practice.

AHB4022 Materia Medica 2
5 credits (75 hours): 75 lecture hours
Prerequisites: Materia Medica 1

This class is the second course of a two-course sequence examining single herbs.

AAC4257 Medical Asepsis and Risk Management for Acupuncturists
4 credit (12 hours): 12 laboratory hours

This class is designed to establish a training and performance standard for the safe application of acupuncture. Students learn the basic standards of care for acupuncture in the United States, including the principles and practice of Clean Needle Technique and the modern process of risk management. Emphasis is placed on achieving consistency with the aseptic standards recognized by modern biomedicine.

AWM1500 Medical Terminology
1 credit (15 hours):
15 lecture hours (online course)

Students will learn general medical terminology (including basic Latin and Greek roots, prefixes and suffixes) to identify, define and communicate terms related to the diagnosis, pathology and treatment of the major human body systems. Competencies are developed through online lesson modules, tests, discussion board questions and written assignments.

AAC5291 Musculoskeletal Treatment
1.5 credits (45 hours):
45 laboratory hours
Prerequisites: Acupuncture Point Location 1 & 2; Accessory Techniques; Acupuncture Treatment Strategy; Anatomy and Physiology 1 & 2; Diagnostic Analysis in Chinese Medicine; Medical Asepsis and Risk Management for Acupuncturists; Needling Anatomy; Needling Techniques 1 & 2; TCM Pathology and Diagnosis 1 & 2; Tui Na

Students learn and apply treatment strategies synthesizing acupuncture and Tui Na for common musculoskeletal disorders. Emphasis is placed on developing Chinese treatment principles for specific orthopedic problems.

AWM4036 Needling Anatomy
2.5 credits (45 hours): 30 lecture hours;
15 laboratory hours
Prerequisites: Anatomy and Physiology 1 & 2; Point Location 1 & 2; TCM Pathology & Diagnosis 1 & 2

This class studies the cross-sectional anatomy of the body as it relates to the position of specific acupuncture points. Special attention is paid to those points located over organs, arteries or other sensitive tissues that may be at specific risk during the needling process of the upper and lower extremities, head, scalp, auricles, throat, thorax, abdomen, pelvis and posterior back (cervical, thoracic, lumbar and sacral) regions of the body. Observation of human cadavers and optional needling of commonly used points and threading techniques are required during the laboratory experience. Class case studies and labs synthesize information from the previous trimester levels for point location, pattern identification, anatomy and aseptic protocols.

AAC4255 Needling Techniques 1
1.6 credits (48 hours): 48 laboratory hours;
Prerequisites: Acupuncture Point Location 1 & 2; Anatomy and Physiology 1 & 2; Medical Asepsis and Risk Management for Acupuncturists; Needling Anatomy; TCM Pathology and Diagnosis 1 & 2

This class is the first course of a two-course laboratory sequence training students in the needling of major points of the body. Emphasis is placed on developing skills in increasingly sophisticated needling techniques.

AAC4256 Needling Techniques 2
2.5 credits (75 hours): 75 laboratory hours;
Prerequisites: Acupuncture Point Location 1 & 2; Anatomy and Physiology 1 & 2; Medical Asepsis and Risk Management for Acupuncturists; Needling Anatomy; Needling Techniques 1; TCM Pathology and Diagnosis 1 & 2

This class is the second course of a two-course laboratory sequence training students in the needling of major points of the body. Emphasis is placed on developing skills in increasingly sophisticated needling techniques.

AAC6220 Nei Jing
2 credits (30 hours): 30 lecture hours
Prerequisites: Acupuncture Point Location 1 & 2; Acupuncture Treatment Strategy; Diagnostic Analysis in Chinese Medicine; TCM Pathology and Diagnosis 1 & 2

Students become familiar with this famous medical classic and have the opportunity to review Chinese medical theory and its origins in the context of the greater underlying philosophy and world view of ancient China.

AWM5060 Nutrition
3 credits (45 hours): 45 lecture hours
Prerequisites: TCM Pathology & Diagnosis 1 & 2

This course provides students with a foundational understanding of Western nutritional and dietary principles. Students are introduced to macro- and micro-nutrients, supplements, popular diets and their clinical applications. They also examine the principles for the promotion of health, wellness and longevity through diet.

AWM4031 Pathophysiology 1
2 credits (30 hours): 30 lecture hours
Prerequisite: Anatomy and Physiology 1 & 2

This class is the first course in a two-course sequence concerning disease processes of the body. Students will compare and contrast normative and pathological states, including indications and symptomology. Topics covered in this course include health vs. disease states, inflammation, neoplasia, platelet disorders, red blood cell disorders and white blood cell disorders.

AWM4032 Pathophysiology 2
2 credits (30 hours): 30 lecture hours
Prerequisites: Anatomy and Physiology 1 & 2; Pathophysiology 1

This class is the second course in a two-course sequence concerning disease processes of the body. Topics covered in this course include the biology of infectious agents, infectious disease, HIV/AIDS and dermatology.

AWM5082 Pharmacology for Chinese Medical Practitioners 1
1 credit (15 hours): 15 lecture hours
Corequisite: Pharmacology for Chinese Medical Practitioners 2

This class explores the professional and scientific issues that arise when Chinese herbal medicine is practiced in a Western culture, including herb-drug interactions, herb allergies, toxicological problems, dose delivery systems and phytochemistry.

AWM5083 Pharmacology for Chinese Medical Practitioners 2
2 credits (30 hours): 30 lecture hours
Corequisite: Pharmacology for Chinese Medical Practitioners 1

This is a general course in clinical pharmacology designed to provide the student with a fundamental understanding of the rationale for pharmacologic intervention for selected drugs; the use of drug information sources; proper interaction with the patient and prescriber; recognition of adverse drug reactions and drug abuse; and the basic principles of pharmacology and toxicology in humans. Course outline material will be covered through a general lecture format including classroom presentations, discussions and case studies.

ARS5091 Practice Management 1
2 credits (30 hours): 30 lecture hours

In the first of two Practice Management classes, students are introduced to the various styles of practice set up and management with lectures, required reading, guest speakers and clinic visits. Practice Management 1 includes Introduction to business budgeting, tax issues for small business, demographic research and considerations in set up, legal issues, entities and partnership as well as job seeking skills with résumé and cover letter writing.

ARS5092 Practice Management 2
2 credits (30 hours): 30 lecture hours
Prerequisite: Practice Management 1

The second of two Practice Management courses, this course focuses on the elements necessary to build a Business Plan including defining target markets, insurance requirements and reimbursement, marketing/advertising, and office set up, e.g. accounting tools, front desk management and financing. Guest speakers, lectures and required reading will assist students in building a business plan.

AAC4030 Pre-Clinical Workshop
3 credits (45 hours): 45 laboratory hours
Prerequisites: Accessory Techniques;
Acupuncture Point Location 1 & 2;
Acupuncture Treatment Strategy; Anatomy
and Physiology 1 & 2; Diagnostic Analysis
in Chinese Medicine; Needling Anatomy;
Pathophysiology 1; TCM Pathology and
Diagnosis 1 & 2
Corequisites: Needling Anatomy 2;
Pathophysiology 2; Western Medical
Screening 1

This course ensures that students have the diagnostic acumen and communication skills necessary to begin supervised Clinical Internship. A strong emphasis is placed on patient interviewing. Teaching techniques may include role-playing, modeling and simulation exercises. In addition, students are trained in clinical procedures and protocols followed in the University clinical system. These protocols include charting and record-keeping, confidentiality requirements and crisis management. Comprehensive written and practical examinations are included and passage of both examinations is required prior to beginning supervised Clinical Internship.

ACH3034 Tai Ji
.5 credit (15 hours): 15 laboratory hours
This course presents the classical practice of Tai Ji in the context of health care. Students learn basic movements and exercises directed toward awareness and development of Qi. The goal is to help the students achieve a state of equanimity and balance in their personal lives, as well as their work with patients.

AAC3214 TCM Pathology and Diagnosis 1
5 credits (75 hours): 75 lecture hours
This course introduces students to the basic ideas that form the framework of Oriental medical thought, including the theories of Yin-Yang, the Five Phases, the vital bodily substances and the functions of the Zang-Fu organs. The students then apply this knowledge to the study of pathology, including the Three Causes, the Eight Parameters, the Six Qi, and disorders of Qi, blood and body fluids. In addition, students begin the study of organ patterns, covering Lung and Spleen patterns.

AAC3215 TCM Pathology and Diagnosis 2
4 credits (60 hours): 60 lecture hours
Prerequisite: TCM Pathology and
Diagnosis 1
This course is a continuation of TCM Pathology and Diagnosis 1. Students will complete the study of organ patterns begun in TCM Pathology and Diagnosis 1 and move on to study Febrile Disease, including Cold and Warm Disease theories. Finally, students will begin the study of the Four Examinations, covering Observation, Listening, Smelling and Palpating.

AWM6061 Topics in Cardiopulmonary Health (fka WCM1)
1.5 credits (22.5 hours): 22.5 lecture hours
Prerequisites: Anatomy and Physiology 1 & 2; Pathophysiology 1 & 2; Western Medical Screening

This class is one of a five-course collection in the study of major health conditions and their pathogenic mechanisms as defined by Western biomedicine. Particular attention is paid to conditions with a high risk of significant adverse outcomes for which effective Western treatments are available and to serious conditions requiring physician referral. Topics covered in this course include review of selected conditions related to cardiology and pulmonology.

AWM6062 Topics in Orthopedic Health (fka WCM2)
1.5 credits (22.5 hours): 22.5 lecture hours
Prerequisites: Anatomy and Physiology 1 & 2; Pathophysiology 1 & 2; Western Medical Screening

This class is one of a five-course collection in the study of major health conditions and their pathogenic mechanisms as defined by Western biomedicine. Particular attention is paid to conditions with a high risk of significant adverse outcomes for which effective Western treatments are available and to serious conditions requiring physician referral. Topics covered in this course include review of selected conditions related to orthopedics.

AWM6063 Topics in Neurological Health (fka WCM4)
3 credits (45 hours): 45 lecture hours
Prerequisites: Anatomy and Physiology 1 & 2; Pathophysiology 1 & 2; Western Medical Screening

This class is one of a five-course sequence in the study of major health conditions and their pathogenic mechanisms as defined by Western biomedicine. Particular attention is paid to conditions with a high risk of significant adverse outcomes for which effective Western treatments are now available and to serious conditions requiring physician referral. Topics covered in this course include review of neurological conditions including stroke, headache, upper motor neuron disorders, lower motor neuron entrapment syndromes, epilepsy and dementia.

AWM6064 Topics in Pediatric, Obstetric and Women's Health (fka WCM2)
3 credits (45 hours): 45 lecture hours
Prerequisites: Anatomy and Physiology 1 & 2; Pathophysiology 1 & 2; Western Medical Screening

This class is one of a five course sequence in the study of major health conditions and their pathogenic mechanisms as defined by Western biomedicine. Particular attention is paid to conditions with a high risk of significant adverse outcomes for which effective Western treatments are available and to serious conditions requiring physician referral. Topics covered in this course include review of selected conditions related to obstetrics, gynecology, infant and children's health.

AWM6065 Topics in Digestive, Endocrine and Male Urogenital Health (fka WCM3)

3 credits (45 hours): 45 lecture hours
Prerequisites: Anatomy and Physiology 1 & 2; Pathophysiology 1 & 2; Western Medical Screening

This class is one of a five-course sequence in the study of major health conditions and their pathogenic mechanisms as defined by Western biomedicine. Particular attention is paid to conditions with a high risk of significant adverse outcomes for which effective Western treatments are available and to serious conditions requiring physician referral. Topics covered in this course include review of selected conditions related to gastrointestinal, endocrinology and male urogenital health.

AHB5130 Traditional Oriental Food Therapy

2 credits (30 hours): 30 lecture hours
Prerequisites: TCM Pathology and Diagnosis 1 & 2

The properties of specific foods are studied according to Oriental therapeutic principles. Different approaches to food therapy are examined. Methods of preparing foods and their influence on therapeutic actions of foods are explored. Dietary recommendations are given for various patterns of disharmony. Students learn how to prepare a selection of therapeutic recipes.

AAC5060 Tui Na

1 credit (30 hours): 30 laboratory hours
Prerequisites: Acupuncture Point Location 1 & 2; Acupuncture Treatment Strategy; Anatomy and Physiology 1 & 2; TCM Pathology and Diagnosis 1 & 2

Students learn the principles and techniques of Chinese manual therapy via lecture, demonstration and hands-on practice. Focus is placed on developing skill in the most basic manipulation techniques used in Tui Na.

AWM4041 Western Medical Screening (fka WMS1)

2.5 credits (45 hours): 30 lecture hours; 15 laboratory hours
Prerequisites: Anatomy and Physiology 1 & 2; Pathophysiology 1 Corequisite: Pathophysiology 2

In this class, students will learn about Western medical techniques for physical examination, health screening and care management. Students will learn to conduct a Western physical examination so that they may differentiate between and select those patients with potentially serious disorders who should be referred for emergency treatment or assessment by a Western physician. Additionally, students will be able to define and discuss medicolegal matters concerning their patients, including issues of patient confidentiality, consent, abandonment, negligence, assault and battery.



Northwestern

Health Sciences University



School of Massage Therapy



Explore the School of Massage Therapy

Comprehensive Science-Based Training

MISSION STATEMENT

The mission of the School of Massage Therapy is to educate therapists as leaders in the field, to elevate the standards of practice and to advance the profession through scientific research. We prepare massage therapists who are committed to service and lifelong learning, and who are qualified to practice both independently and as members of integrated health care teams. Graduates of the School of Massage Therapy will ground their work in scientific knowledge, clinical proficiency, and the highest standards of ethical and professional behavior.

EDUCATIONAL OBJECTIVES

Therapists who successfully complete the certificate program of study offered by the School will be able to:

1. Effectively and accurately assess the condition of a client, and develop and implement a therapeutic plan relevant to the client's needs and preferences;
2. Communicate effectively with clients and the general public;
3. Direct clients, when appropriate, to a spectrum of other resources;
4. Develop and sustain a successful massage therapy practice;
5. Understand the psychological and professional boundary issues present in practice, and act based upon ethical standards of practice;
6. Understand the importance of actively managing and maintaining one's own health and wellness, including the use of effective biomechanical practices;
7. Pass the National Certification Examination for Therapeutic Massage and related state and local examinations.

In addition to the above objectives, students who successfully complete the Associate in Applied Science degree (AAS) will be able to:

8. Demonstrate the writing, critical thinking, reasoning and oral communication skills expected of a graduate of an associate-level degree program.

MASSAGE THERAPY AS A HEALTH CARE PROFESSION

The program of study offered by the School of Massage Therapy is based upon two assumptions about massage therapy: that massage therapy is a type of health care and that massage therapy is a profession.

Massage Therapy as Health Care

The first assumption is that massage therapy is a type of health care. While we are respectful of the diversity of approaches to massage practice, the intention of the School of Massage Therapy is to prepare therapists to work with other natural and medical health care providers. While we offer thorough training in basic relaxation-oriented massage, we do so as preparation for more specific therapeutic work. Massage therapy practiced in health care environments tends to be more problem-based and more strongly focused on soft-tissue rehabilitative techniques. The majority of our technique training focuses on this type of work. As a natural health sciences university, Northwestern believes that natural health care practitioners should be trained together and will, in many instances, practice together. The University and the School view massage therapy as an integral part of natural health care.

Massage Therapy as a Profession

The second assumption is that massage therapy is a profession, as opposed to simply a career or a trade. As professionals, massage therapists should be expected to conduct themselves in the same professional manner as doctors, nurses and other health care professionals in terms of their interactions with patients, clients, other providers

and the general public. Professionals are generally held to higher and more specific ethical and behavioral expectations. The curriculum provides specific preparation in the areas of communication skills, lifelong learning, ethical decision-making, legal and regulatory issues, and professional practice development.

APPROACH TO LEARNING

The School of Massage Therapy believes that the students and faculty should be continuously learning. Students learn from faculty, from each other, from their clients and from sources of professional information. Faculty members continue to learn in order to remain current on relevant information. The experiences of students and faculty result in the program evolving and growing. As in most professional programs, students in the School frequently learn by doing. The School takes the holistic perspective of student as future practitioner rather than focusing solely on course-based demonstrations of performance, such as tests. As a result, students receive and respond to frequent objective and subjective performance feedback from faculty, peers and clients. This mirrors the experience of most therapists in practice, who must be dynamically responsive to client feedback in order to be clinically effective and professionally successful.

CLASS SIZE AND ATTENDANCE

The School believes that small class sizes are essential to effective learning of massage therapy techniques. Therefore, the teacher-to-student ratio will typically not exceed 1:50 in lecture classes and 1:13 in lab classes. Because the School teaches technique through reciprocal application, the learning of every student can be impacted by the attendance patterns of other students. Course attendance is a demonstration of seriousness about the program of study, a demonstration of respect for the faculty and your colleagues, and a necessity for course success.

ADMISSION INFORMATION

Admission to the School

Northwestern admits as students, women and men of good character and health who are qualified by previous education and experience to meet its academic challenges and to become a practicing massage therapist.

Applications for admission, as well as current tuition and fees, are available online at <http://www.nwhealth.edu> or they may be obtained by contacting the Office of Admissions. The application for admission must be accompanied by a non-refundable application processing fee of \$50 (US dollars) and a criminal background check fee of \$20 (US dollars). It is the responsibility of the applicant to read this catalog and comply with all provisions and instructions.

For the day schedule, new students are admitted at the beginning of two trimesters of the academic year: September and January. For the evening schedule, new students will be admitted at the beginning of one trimester of the academic year: May.

Persons who have been convicted of a misdemeanor of a violent or sexual nature or any felony will be prohibited from professional health care practice in many jurisdictions. Northwestern Health Sciences University will deny admission to applicants with such convictions. The University therefore reserves the right to conduct a criminal background check on all applicants and enrolled students.

Entrance Requirements

Applicants must meet the following requirements:

1. Students must have an earned a high school diploma, its foreign equivalent or a General Educational Development diploma (GED). Successful completion of at least 60 semester credit hours in a college or university accredited by an accrediting agency recognized by the United States Department of Education will be recognized as equivalent to a high school diploma. Students are strongly recommended to take at least one year each of high school biology, chemistry and physics; and mathematics through algebra.

2. Applicants must have achieved a cumulative grade point average (GPA) of 2.0 or better in prerequisite coursework;
3. All students must pass a criminal background check;
4. Students must demonstrate sufficient maturity to undertake a health care profession, including the capacity to ethically and responsibly manage professional boundaries.

Admission to the School of Massage Therapy is competitive. The University expects that most, if not all, students will exceed the minimum admission requirements.

Qualifications

A student must possess the following abilities, with or without reasonable accommodation, for completion of the professional certificate program in massage therapy:

1. Ability to apply massage and adjunctive techniques over the full range of a client's body, including positioning clients, palpating, feeling with hands and fingers, pushing, pulling, kneading, grasping, twisting wrists and lifting up to 10 pounds, for periods of up to 90 minutes standing without interruption;
2. Ability to determine depth and intensity of manual pressure and force, as applied in the performance of common massage and adjunctive procedures and techniques;
3. Ability to see and hear, with or without reasonable accommodation, sufficient that the student can receive and record client histories, document treatment plans, provide instructions to clients and provide routine client safety services;
4. Ability to perform in all laboratory and clinical settings without posing a threat to herself/himself, to the safety and well-being of fellow students or clients;
5. Ability and willingness to receive massage and adjunctive treatment. Much of the technical instruction in the programs requires reciprocal application of the techniques of massage therapy, including trigger point therapy and cross fiber friction. In reciprocal laboratory experiences, receiving techniques is necessary in order to learn proper procedures and to receive and provide learning feedback. Reciprocal application of technique is also useful for developing sensitivity to client needs. The School may temporarily excuse a student from receiving

massage therapy provided that there is a specific medical contraindication, as determined in writing by a licensed health care professional.

All students, with or without reasonable accommodation, must carry out laboratory and clinical assignments, including providing massage therapy services to clients. Qualified persons with disabilities, with or without reasonable accommodation, must be able to pass oral, written and practical examinations and meet all of the clinical requirements of the University.

It is in the best interests of both the student and the University to assess the degree of limitation caused by disability. However, the University will make the final determination of whether or not an individual meets all qualifications for study at the University.

The University accommodations process is found under "Student Life." Additionally, questions regarding qualifications or accommodations should be directed to the Office of Student Affairs.

Responsibility of Applicant

It is the responsibility of the applicant to be aware of the entrance requirements and to ensure that they are met prior to enrollment. If the School determines at any time that requirements are not met in full, the student will not be allowed to enroll or to continue at Northwestern. The Office of Admissions personnel are available to help prospective students plan their pre-massage therapy curricula.

Minnesota Immunization Requirement

All students born in 1957 or later must comply with the Minnesota State College Immunization Law (Minn. Stat. 135A.14). An admitted student must show proof of DPT immunization within the past 10 years, as well as measles, mumps and rubella immunization after his/her first birthday. However, exemptions are permitted for philosophical or medical reasons. Further information is included with letters of acceptance to Northwestern.

Some clinical environments outside the University Clinic system may establish immunization and/or health screening requirements exceeding the Minnesota State College Immunization Law. In addition, some clinical environments outside the University Clinic system may not accept placement of interns who have not received or are not in the process of receiving certain immunizations and/or health screenings.

Application Procedure

The first step in the application process is to submit a fully completed application for admission. Applications are available online at <http://www.nwhealth.edu> or from the Office of Admissions. The application must include:

1. A properly completed application for admission. Please type or print neatly;
2. An application processing fee of \$50 (US dollars). This fee is non-refundable;
3. Official transcripts from all colleges attended sent directly to the Office of Admissions at Northwestern Health Sciences University from those colleges. High school transcripts or a General Educational Development diploma (GED) are required only if the student has less than 60 semester credits or does not have prior college work. NOTE: Indicate on your application if your transcripts will be arriving under another name.
4. Two completed character reference forms. References should be people who have known you for a period of at least six months. References from teachers, professors and natural health care professionals are preferred. Relatives are not accepted as references. Northwestern will send character reference forms to those references listed on the application who should complete the form and return it to the University;
5. A completed criminal background check. Northwestern will provide a consent form that must be completed and returned to the Office of Admissions;
6. A completed essay (see application form for instructions).

Selection of Candidates

The Admissions Committee seeks to matriculate students who best suit the philosophies and goals of the University. Northwestern seeks to select students who have strong academic records and who demonstrate the motivational and personal characteristics suitable for a career in massage therapy. Willingness to provide service and a caring attitude are important characteristics of a future massage therapist. The University employs a rolling admissions process. Therefore, early application could increase the applicant's probability for acceptance. The University encourages campus visits for all applicants and reserves the right to require an interview.

Tuition Deposit Policy

Applicants will be notified in writing of the Admission Committee's decision regarding their application following receipt of all application materials and committee review. Upon notification of acceptance, a candidate must remit a tuition deposit of \$100 (US dollars) to reserve a position in the entering class. This tuition deposit is non-refundable but is applied toward the first trimester tuition. If the student has a loan in progress for the first trimester at Northwestern, then the first trimester tuition will be credited against this loan. It is important to note that because of the limited space available in each class, scheduling priorities and the cost of education, the institutional refund policy does not apply to the \$100 tuition deposit.

Transfer Students and Transfer Policy

The School of Massage will consider requests for transfer credit based on the following criteria:

1. An official transcript must accompany any request for transfer credit;
2. The institution where the coursework was completed must be accredited by an accrediting agency recognized by the United States Department of Education;
3. The course(s) completed at the other institution must have similar objectives and be of similar content and length as the course(s) being substituted at the School of Massage Therapy. A course catalog and/or syllabus may be required to demonstrate course content;
4. Students must have earned a C or better in any course being considered for transfer;
5. Any coursework submitted for transfer must have been completed within five years of the date that a transfer application is submitted to the University;
6. A maximum of 20 credits will be transferred per student;
7. The School of Massage Therapy reserves the right to offer transfer credit to students who demonstrate proficiency in course material based on submission of a portfolio demonstrating competency in the objectives of the course;
8. Requests for transfer credit will only be considered prior to matriculation into the School of Massage Therapy;
9. The final decision regarding transfer credit rests with the Dean of the School of Massage Therapy.

Payment

All tuition and fees owed are due and payable by the end of the third week of class each academic term. After the completion of the third week of class, if tuition has not been paid or if arrangements for payment have not been made with the Student Records and Financial Services Office, a \$100 (US dollars) late fee will be assessed and registration for that academic term will be canceled. In order to be reinstated, the affected student must pay tuition in full or make payment arrangements with the Student Records and Financial Services Office. All tuition and fees owed by a student must be paid in full before registration begins for the subsequent academic term or s/he will not be allowed to register. Any student with a balance due at the time of graduation will not receive a diploma and copies of official transcripts will be withheld until the balance is paid in full.

When you receive financial aid, you are subject to the 150 percent rule. This rule means that if you attempt more than 150 percent of the credit hours needed to graduate from the program, you will not be eligible to continue to receive financial aid. (For example, the number of credit hours needed to complete the certificate program is 40 and 150 percent of 40 credits is 60 credits.)

The Institutional Refund Policy applies to students who withdraw, students who are dismissed and in the case of cancellation of the program in which the student is enrolled.

Readmission

A student who is placed on administrative withdrawal may petition in writing for readmission to the School of Massage Therapy. A student who has been dismissed from the program for academic reasons may petition, in writing, for readmission to the School of Massage Therapy. Petitions for readmission must be submitted to the Dean. The following procedure applies:

1. A committee composed of faculty convenes to review the student's written request;
2. The committee, chaired by the Dean, either:
 - requests additional information; or
 - writes a report recommending or not recommending readmission based on review of the request;

3. A recommendation for reinstatement shall include:
 - specific provisions for readmission (e.g., retaking a course or courses);
 - date for readmission (e.g., immediately or the following academic term).
4. The Dean makes the final decision regarding readmission and communicates the decision in writing to the student. The decision of the Dean may be appealed to the Provost;
5. The Dean monitors the progress surrounding the stipulated provisions (if any) of any readmitted learner student and reports to the Dean if the learner has or has not satisfied the stipulated provisions (if any) for readmission;
6. The Dean communicates in writing to the student that all provisions (if any) for readmission have been met, or that provisions have not been satisfied and the student is dismissed.

Non-Program Students

Students not currently admitted to a program may enroll in a course for credit, if they meet the prerequisites, space is available and approval for attendance in the course has been granted by the course instructor and the Dean.

Students that are granted approval to enroll in a course should contact the Office of Admissions for a special application and registration instructions.

ACADEMIC POLICY

The following academic policies and procedures refer specifically to the School of Massage Therapy. The University Student Handbook, which is available online at <http://www.nwhealth.edu>, contains general policies and procedures that apply to all students of the University.

Academic Policy Credits

The academic calendar includes fall, winter and summer academic terms of 15 weeks each. In general, one credit in the School of Massage Therapy represents 15 lecture hours, 30 laboratory hours or 45 clinical hours during a 15-week term.

Grading Policy

The School of Massage Therapy uses a grade point system to evaluate the overall quality of course work. Courses are graded A, B, C, D, or F. The number of grade points earned in a given course is the number of credits for that course multiplied by the grade point corresponding to the grade recorded in that course, as indicated here:

Grade	Grade Points	Suggested Achievement Level
A	4	90 – 100 percent of points; <i>outstanding</i>
B	3	80 – 89 percent of points; <i>superior</i>
C	2	70 – 79 percent of points; <i>satisfactory</i>
D	1	60 – 69 percent of points; <i>minimally satisfactory</i>
F	0	59 percent of points or fewer; <i>unsatisfactory</i>
S	N/A	Satisfactory (C or better); <i>competency successfully demonstrated</i>
U	N/A	Unsatisfactory (D/F); <i>competency not successfully demonstrated</i>
I	N/A	Incomplete
W	N/A	Withdrawal
T	N/A	Transfer; used to indicate courses for which the learner received advanced standing or transfer credit

Notes on Grading:

1. Instructors assign letter grades as appropriate according to the student's achievement level;
2. Students enrolled in the School of Massage Therapy must maintain a 2.0 (C) cumulative grade point average (GPA) or better unless otherwise stipulated. Students may receive grades lower than C and remain in good standing if they maintain at least a 2.0 cumulative grade point. However, students must satisfactorily complete all courses in order to graduate from the School of Massage Therapy;
3. Pluses and minuses are not part of the official grading system and are not figured into a student's grade point average (GPA);
4. The Satisfactory/Unsatisfactory grade option is intended for course work where a letter grade cannot be appropriately assigned. Credits under this option are counted toward the total number of credits required for graduation but are not used in determining a student's grade point average;
5. A student must earn a grade of A, B, C, D, or S in order to fulfill course requirements.

Use of the Grade I

The grade of I (incomplete) indicates that work was not completed prior to the last day of the term or learning contract and is intended to reflect circumstances beyond the student's or instructor's control. It is the responsibility of the student to consult with the instructor to determine the work still remaining to be completed. Incomplete work must be satisfactorily completed during the first four weeks of the next academic term. After that time, a grade of I will automatically become a grade of F. Students experiencing extenuating circumstances may seek a waiver of the time limit from the program administrator, who may choose to grant the waiver, refuse the waiver or refer the request to the Academic Standards Committee. The University reserves the right to require the Student to provide evidence of extenuating circumstances to the satisfaction of the University. Under no circumstances will a waiver be awarded that extends beyond the conclusion of the student's next academic term.

Academic Standing

Students are considered in good academic standing unless they are dismissed or enrolled as a Special Student. Students must be in good academic standing to serve as Student Senate officers or as officers of approved student organizations. Students in good academic standing may progress toward degree completion.

Course Attendance and Punctuality

Course attendance and punctuality represent a demonstration of seriousness about the program of study, a demonstration of respect for the faculty and your colleagues, and a necessity for course success. Each instructor will list course attendance requirements and tardiness policies, including consequence for violation of these policies, on the course syllabus.

GRADUATION

Graduation Requirements

The Certificate or AAS in Massage Therapy is granted to those candidates who have:

1. Completed the required curriculum.
2. Demonstrated competency in clinic and completed internship and field experience requirements;
3. Earned a cumulative grade point average (GPA) of 2.0 or better;
4. Fulfilled all financial obligations to the University;
5. Current First Aid and CPR certification.

Graduation Rate

Please refer to our website for the most recent graduation rate statistics.

The School of Massage Therapy makes no guarantee of employment of students upon completion of the program.

PROFESSIONAL LICENSURE, REGISTRATION, OR CERTIFICATION

As of 2010, statewide standards for massage therapy practice have been established in 43 states and the District of Columbia. Each state has established slightly differing standards for professional eligibility. At this time, no statewide standard for professional licensure, registration or certification exists for massage therapists in Minnesota. Many cities in Minnesota have established ordinances that regulate the practice of massage therapy and some cities require practitioner registration.

Professional licensure requirements vary by jurisdiction. Students should not rely upon staff descriptions or statements regarding licensure requirements and need to consult directly with the licensure board for the profession and in the state or province in which they intend to practice.

The University makes no guarantees that an individual student will satisfy the licensure, registration or certification requirements of any particular state or other jurisdiction. It is the responsibility of an individual student to confirm the regulatory requirements that may apply in any jurisdiction in which that student intends to practice.

Students who complete the certificate or AAS program of study offered by the School of Massage Therapy will be eligible to sit for the National Certification Examination in Therapeutic Massage and the Massage and Bodywork Licensing Examination. In many states with statewide standards, successful completion of this examination is a qualifying requirement for licensure, registration or certification. The University requires that all of its massage therapy technique instructors successfully complete this certifying examination and continuously maintain certification.

Receipt of a certificate or degree from Northwestern Health Sciences University does not guarantee a license or certification to practice. States vary in the specific courses of study required and/or state-based testing for certification or licensing. Students are responsible for confirming with the appropriate board(s) to determine the specific requirements for the state(s) in which they intend to practice and/or seek employment.

STUDY TIME

The time required outside of scheduled class time for homework and studying can vary considerably based on the individual student. However, as a general rule, students should plan on a minimum of two to three hours of homework and studying outside of class for every one hour of lecture time. This brings the minimum combined classroom and study time commitment to more than 1,000 hours.

CURRICULUM OVERVIEW

Academically rigorous classroom, lab and clinical learning, built on the following four pillars:

- Anatomy, physiology, pathology, kinesiology and nutrition courses provide students with a thorough overview of the human body and how it works.
- Hands-on clinical experience in the University's public clinics and other community sites prepared the students for practice.
- Assessment and treatment technique courses prepare students to tailor each massage session to meet the unique needs of their clients.
- Communication, ethics, legal issues, practice management courses and personal learning strategies prepare students for professional practice.

Two Convenient Program Options

Students have the option of choosing either the certificate program or the Associates of Applied Science program. Graduates of both programs will be prepared for the National Certification Examination in Therapeutic Massage. We prepare you with the skills necessary to be successful in a wide variety of settings including hospitals, medical clinics, rehabilitation facilities, wellness centers, health clubs, spas and private practice.

Massage Therapy Certificate Program

- 41.5 trimester credits
- 907.5 hours
- Day and Evening scheduling options

Associate of Applied Science in Massage Therapy

The associate of Applied Sciences (AAS) in Massage Therapy is designed for students who wish to earn a degree in massage therapy. Some employers prefer or require the degree. The AAS program can be completed by adding the following requirements to the certificate program: 15 credits of general education courses, 3 credits of electives, and a half-credit hydrotherapy course.

- 60 trimester credits
- 1,192.5 hours
- Day and Evening scheduling options

Electives

In addition to the core curriculum outlined on the following pages, students are required to complete a minimum of three credits of electives coursework for the certificate program and six credits for the AAS program. This brings the total curriculum to 41.5 credits (907.5 hours) for the certificate program and 60 credits (1,192.5 hours) for the AAS program.

PROGRAM CHANGES

Northwestern Health Sciences University reserves the right to change or discontinue academic programs at the University's discretion.

SCHOOL OF MASSAGE THERAPY COURSE LIST (DAY):

Trimester 1

Course Number	Title	Credits	Hours			
			Contact	Lecture	Lab	Clinic
SMT1160	Ethics and Professionalism	2	30	30	0	0
SNU1112	Fundamental Principles of Nutrition	2	30	30	0	0
SBS1213	Human Anatomy and Physiology 1	2.5	45	30	15	0
SMT1162	Legal Aspects of Therapeutic Massage	.5	7.5	7.5	0	0
SBS1500	Medical Terminology	1	15	15	0	0
SMT1700	Relaxation Massage 1	2.5	60	15	45	0
SMT1701	Relaxation Massage 2	2	60	0	60	0
TRIMESTER 1 TOTAL		12.5	247.5	127.5	120	0

Please note: A required CPR course (SMT0030) is offered each trimester.
A required First Aid course (SMT0040) is offered each trimester.

Trimester 2

Course Number	Title	Credits	Hours			
			Contact	Lecture	Lab	Clinic
SMT1210	Applied Anatomy	2	45	15	30	0
SMT1170	Business and Practice Management	1.5	22.5	22.5	0	0
SMT1935-1	Clinic Rotation 1: Foundational Skills	1	45	0	0	45
SMT1935-2	Clinic Rotation 2: Enhancement of Clinical Skills	1	45	0	0	45
SBS1214	Human Anatomy and Physiology 2	2.5	45	30	15	0
SMT1163	Massage Therapy's Role in Healthcare	1	15	15	0	0
SMT 1171	Professional Identity Development	.5	7.5	7.5	0	0
SMT1702	Rehabilitative Massage 1	3.5	90	15	75	0
TRIMESTER 2 TOTAL		13	315	105	120	90

Trimester 3

Course Number	Title	Credits	Hours			
			Contact	Lecture	Lab	Clinic
SMT1935-3	Clinic Rotation 3: Refinement of Clinical Skills	1	45	0	0	45
SMT1935-4	Clinic Rotation 4: Mastery of Clinical Skills	1	45	0	0	45
SMT2200	Foundations of Evidence-Informed Practice	1	15	15	0	0
SBS1216	Human Anatomy and Physiology 3	2.5	45	30	15	0
SMT2621	Massage Therapy for Special Populations	2	30	30	0	0
SBS2100	Pathology	2	30	30	0	0
SMT1703	Rehabilitative Massage 2	3.5	90	15	75	0
TRIMESTER 3 TOTAL		13	300	120	90	90
CORE CURRICULUM TOTAL		38.5*	862.5	352.5	330	180

* does not include elective requirement

SCHOOL OF MASSAGE THERAPY COURSE LIST (EVENING):

Trimester 1

Course Number	Title	Credits	Hours			
			Contact	Lecture	Lab	Clinic
SMT1160	Ethics and Professionalism	2	30	30	0	0
SNU1112	Fundamental Principles of Nutrition	2	30	30	0	0
SBS1213	Human Anatomy and Physiology 1	2.5	45	30	15	0
SMT1162	Legal Aspects of Therapeutic Massage	.5	7.5	7.5	0	0
SBS1500	Medical Terminology	1	15	15	0	0
SMT1700	Relaxation Massage 1	2.5	30	15	45	0
TRIMESTER 1 TOTAL		10.5	187.5	127.5	60	0

Please note: A required CPR course (SMT0030) is offered each trimester.
A required First Aid course (SMT0040) is offered each trimester.

Trimester 2

Course Number	Title	Credits	Hours			
			Contact	Lecture	Lab	Clinic
SMT1210	Applied Anatomy	2	45	15	30	0
SMT1935-1	Clinic Rotation 1: Foundational Skills	1	45	0	0	45
SMT1214	Human Anatomy and Physiology 2	2.5	45	30	15	0
SMT1701	Relaxation Massage 2	2	60	0	60	0
TRIMESTER 2 TOTAL		8	195	45	105	45

Trimester 3

Course Number	Title	Credits	Hours			
			Contact	Lecture	Lab	Clinic
SMT1935-2	Clinic Rotation 2: Enhancement of Clinical Skills	1	45	0	0	45
SMT1170	Business and Practice Management	1.5	22.5	22.5	0	0
SBS1216	Human Anatomy and Physiology 3	2.5	45	30	15	0
SMT1163	Massage Therapy's Role in Healthcare	1	15	15	0	0
SMT 1171	Professional Identity Development	.5	7.5	7.5	0	0
SMT1702	Rehabilitative Massage 1	3.5	90	15	75	0
TRIMESTER 3 TOTAL		10	225	90	90	45

Trimester 4

Course Number	Title	Credits	Hours			
			Contact	Lecture	Lab	Clinic
SMT1935-3	Clinic Rotation 3: Refinement of Clinical Skills	1	45	0	0	45
SMT1935-4	Clinic Rotation 4: Mastery of Clinical Skills	1	45	0	0	45
SMT2200	Foundations of Evidence-Informed Practice	1	15	15	0	0
SMT2621	Massage Therapy for Special Populations	2	30	30	0	0
SBS2100	Pathology	2	30	30	0	0
SMT1703	Rehabilitative Massage 2	3.5	90	15	75	0
TRIMESTER 4 TOTAL		10.5	255	90	75	90
CURRICULUM TOTAL		38.5*	862.5	352.5	330	180

* does not include electives requirement

In addition to the course requirements, students in the AAS program must complete the following coursework:

Course Number	Title	Credits	Hours			
			Contact	Lecture	Lab	Clinic
ENGL1001	English Composition	3	45	45	0	0
ETHC1001	Ethics	3	45	45	0	0
PSYC1001	General Psychology	3	45	45	0	0
ENGL1002	Human Communication	3	45	45	0	0
SMT1800	Hydrotherapy	.5	11.25	3.75	7.5	0
SOC1001	Sociology	3	45	45	0	0

Please see College of Undergraduate Health Sciences for course descriptions for English Composition, Human Communication, General Psychology, Ethics, and Sociology

COURSE DESCRIPTIONS:

SMT1210 Applied Anatomy

2 credits (45 hours): 15 lecture hours;
30 laboratory hours
Prerequisite: Human Anatomy and
Physiology 1

Students undertake a detailed exploration of muscles, bones and joints of the human body. Emphasis is placed on the relationships among muscle attachments, bony landmarks and prominent joint structures. Students learn about human movement with relation to levers and their association to planes of movement. The laboratory portion of the course utilizes the anatomically accurate models of the Maniken® Professional system (Anatomy in Clay®) to build three-dimensional musculature out of clay.

SMT1170 Business and Practice Management

1.5 credits (22.5 hours): 22.5 lecture hours
Prerequisites: SMT 1162 Legal Aspects of
Therapeutic Massage, SMT1160 Ethics
and Professionalism

This course provides practical information regarding the fundamentals of business and practice management. Common business practices and structures, legal agreements, financial record keeping and income tracking are explored. Methods to promote and maintain a successful practice including time management, promotion, networking, and maintenance of the work environment are presented.

SMT1935-1 Clinic Rotation 1: Foundational Skills

1 credit (45 hours): 45 clinic hours
Prerequisites: SMT1701 Relaxation
Massage 2, SMT1160 Ethics and
Professionalism

In Clinic Rotation 1, students are exposed to the function and role of a massage therapist in a clinical environment. Under the supervision of faculty, students participate in various aspects of clinic operations including: provision of care, communication regarding client care and services, case management, clinic flow, and documentation. Students perform basic 60 minute relaxation sessions on the public as learned in Relaxation Massage 1 & 2.

SMT1935-2 Clinic Rotation 2: Enhancement of Clinical Skills

1 credit (45 hours): 45 clinic hours
Prerequisite: SMT1925-1 Clinic Rotation
1: Foundational Skills

In Clinic Rotation 2, students begin to understand and perform in the role of a massage therapist in a clinical environment as they expand their participation in various aspects of clinic operations. Clinical interaction and communication skills advance beyond the basic level expected in Clinic Rotation 1. Students perform treatment sessions that incorporate both relaxation and rehabilitative techniques as learned in the classroom.

SMT1935-3 Clinic Rotation 3: Refinement of Clinical Skills

1 credit (45 hours): 45 clinic hours
Prerequisites: SMT1935-2 Clinic Rotation
2: Enhancement of Clinical Skills, SMT
1702 Rehabilitative Massage 1

In Clinic Rotation 3, students enhance their identity and role in a clinical environment. Critical thinking, individualized treatment plans, and in-depth clinical interactions using advanced techniques become central to the student experience. Students perform treatment sessions that focus on client symptoms and goals, incorporating techniques and adapting the session to meet client needs with consideration for diverse populations.

SMT1935-4 Clinic Rotation 4: Mastery of Skills

1 credit (45 hours): 45 clinic hours
Prerequisite: SMT1935-3 Clinic Rotation
3: Refinement of Clinical Skills
Corequisite: SMT1702 Rehabilitative
Massage 2

Clinic Rotation 4 represents a culmination, integration and mastery of all classroom and clinical learning. Students refine their professional identity and role in the clinical environment as they master their skills and prepare to enter the profession.

SMT0030 CPR

0 credit (4 hours): 4 lecture hours

This is a 2 year certification course of the American Heart Association. It includes CPR for adults and infants, use of AED, bag-valve mask, choking and special resuscitation and cardiopulmonary emergencies.

SMT1160 Ethics and Professionalism

2 credits (30 hours): 30 lecture hours

Ethics and Professionalism outlines effective communication skills needed to manage the therapeutic relationship and to work with colleagues in the health care community. This course includes topics such as a professional code of ethics, scope of practice, conflict resolution, boundaries and cultural differences. Emphasis is placed on supporting the emerging therapist to create a successful career.

SMT0040 First Aid

0 credit (3 hours): 3 lecture hours

This is a 2 year certification course of the American Heart Association. It includes first aid basics, medical emergencies, injury emergencies and environmental emergencies.

SMT2200 Foundations of Evidence-Informed Practice

1 credit (15 hours): 15 lecture hours

This course uses a blended approach of classroom and online presentations and activities to introduce students to the basic principles of evidence-informed practice (EIP). EIP is an approach that integrates clinical findings, patient preferences, research and clinical experience (all important types of evidence) into the process of health care delivery. Students learn the strengths and limitations of each element of the model and how to use them together to enhance clinical decision-making and patient outcomes.

SNU1112 Fundamental Principles of Nutrition

2 credits (30 hours): 30 lecture hours

The fundamental principles of human nutrition serve as a component of self-care and effective client communication. Students examine functions in the body and food sources of various micro- and macronutrients as well as energy balance and the role of nutrition in disease states. An analysis of individual food intake and exploration of the rationale behind specific food choices is included.

SBS1213 Human Anatomy and Physiology 1

2.5 credits (45 hours): 30 lecture hours;
15 laboratory hours

The first in a three-part sequence of courses introduces students to the organization of the body on a chemical, cellular, tissue and system level. Integrating structures (anatomy) and their function (physiology) is a focus of each course in this sequence with this course examining the skeletal/articular and muscular systems in detail. The laboratory portion of the course will include the opportunity to observe prosected human cadavers.

SBS1214 Human Anatomy and Physiology 2

2.5 credits (45 hours): 30 lecture hours;
15 laboratory hours
Prerequisite: SBS1213 Human Anatomy and Physiology 1

This course builds on the material from Human Anatomy and Physiology 1 and focuses on the nervous, endocrine and cardiovascular systems. Prosected human cadavers may be observed during some laboratory sessions.

SBS1216 Human Anatomy and Physiology 3

2.5 credits (45 hours): 30 lecture hours;
15 laboratory hours
Prerequisite: SBS1214 Human Anatomy and Physiology 2

This final Human Anatomy and Physiology course focuses on the lymphatic, immune, digestive, urinary, respiratory, integumentary and reproductive systems and then integrates all systems through cross-sectional analysis of the body. As with the other courses in this sequence, the opportunity to observe prosected human cadavers may be included.

SMT1800 Hydrotherapy

0.5 credits (11.25 hours): 3.75 lecture hours;
7.5 laboratory hours
Prerequisite: SMT 1700 Relaxation Massage 1

Hydrotherapy is the therapeutic use of water in any of its forms, for the treatment of illness and pain relief. This course will focus on the physiological effects of heat and cold on the body and address various methods of hydrotherapy that can be used within a massage therapy session. Practical applications of hot and cold therapies are included.

SMT1162 Legal Aspects of Therapeutic Massage

.5 credit (7.5 hours): 7.5 lecture hours

This course introduces legal issues faced by massage therapists. Scope and standards of practice of massage therapy in the context of today's healthcare environment are discussed. Topics include HIPAA and other privacy requirements, the Unlicensed Health Care Practitioners Law, professional liability and the role of professional associations. Licensing and regulation of massage therapists at the federal, state and local levels with discussion of the importance of continuing education are covered.

SMT2621 Massage Therapy for Special Populations

2 credits (30 hours): 30 lecture hours
Prerequisite: SMT1701 Relaxation Massage 2

This course integrates the theories, principles, and techniques learned across the curriculum, from both a population and a condition perspective. A focus of this class will be the critical thinking skills needed to design an individualized session to meet a client's specific needs. Students learn and discuss the unique considerations for treating special populations, including older adults, persons with disabilities, terminal illnesses, infants and women in pregnancy. Special conditions will be discussed with emphasis on indications, contraindications, techniques, and adaptations. Topics of medications, diversity and research will also be included.

SMT1163 Massage Therapy's Role in Healthcare

1 credit (15 hours): 15 lecture hours

This course supports the developing identity of the student as a health care provider. The diverse role of massage therapy within the greater context of conventional, complementary and alternative approaches to health care is discussed. A variety of disciplines and modalities are explored.

SBS1500 Medical Terminology (online course)

1 credit (15 hours): 15 lecture hours

An understanding of basic medical terminology is necessary for any education in the health sciences. Students will learn general medical terminology related to anatomy, physiology, pathology, treatments and medical specialties, including basic Latin and Greek roots, prefixes and suffixes. The online course will utilize written assignments, discussion forums and exams. Methods to analyze word structure as opposed to mere memorization of words serve as a foundation for this course.

SBS2100 Pathology

2 credits (30 hours): 30 lecture hours

Prerequisite: SBS 1214 Human Anatomy and Physiology 2

Students are introduced to common dysfunctions of the human body as a result of disease or injury. The course examines common causes of pathological conditions as well as methods to limit disease transmission. Representative signs, symptoms and treatment options are emphasized. In addition, specific implications for bodywork will be discussed where applicable.

SMT1702 Rehabilitative Massage 1

3.5 credits (90 hours): 15 lecture hours;
75 laboratory hours

Prerequisite: SMT1701 Relaxation
Massage 2

This course presents basic rehabilitative theory and teaches technical skills needed to work with clients experiencing myofascial pain symptoms. Techniques focus on trigger point therapy and cross fiber friction, with emphasis on developing a basic treatment protocol. Students will expand their anatomical knowledge and palpation skills in the context of rehabilitative massage. Skills related to the assessment and rehabilitation of soft tissue structures and related symptomologies of the upper body are learned. Advanced SOAP note charting is covered. In addition to laboratory sessions, learners engage in practice massage sessions outside scheduled class hours.

SMT1703 Rehabilitative Massage 2

3.5 credits (90 hours): 15 lecture hours;
75 laboratory hours

Prerequisite: SMT1702 Rehabilitative
Massage 1

This course presents advanced technical skills needed to work with clients experiencing myofascial pain symptoms. Techniques continue to focus on trigger point therapy and cross fiber friction, with emphasis on the development of a treatment plan. Students will further expand their anatomical knowledge and palpation skills in the context of rehabilitative massage. Skills related to the assessment and rehabilitation of soft tissue structures and related symptomologies of the lower body are learned. Advanced documentation methods are presented. In addition to laboratory sessions, learners engage in practice massage sessions outside scheduled class hours.

SMT1700 Relaxation Massage 1

2.5 credits (60 hours): 15 lecture hours;
45 laboratory hours

Students learn techniques for a full-body massage, including palpation skills. Students are introduced to correct body mechanics, injury prevention, table management and draping methods. Students are introduced to principles of documentation for the health care setting including charting using the SOAP format. In addition to laboratory sessions, learners are required to engage in practice massage sessions outside of scheduled class hours.

SMT1701 Relaxation Massage 2

2 credits (60 hours): 60 laboratory hours

Prerequisite: SMT1700 Relaxation
Massage 1

Students learn enhanced techniques for a full-body massage; building from the knowledge base acquired in Relaxation Massage 1. The students also learn on-site chair massage skills as well as an introduction to the principles and practice of reflexology. Documentation and SOAP charting skills are refined. Learners participate in a classroom clinic, open to the public, to prepare for the clinic rotation course. In addition to laboratory sessions, learners are required to engage in practice massage sessions outside of scheduled class hours.

ELECTIVES: SCHOOL OF MASSAGE THERAPY

COURSE DESCRIPTIONS:

**SME1330 Advanced Clinical Training:
NeuroMuscular Therapy and Fascial
Techniques**

3.5 credits (90 hours): 15 lecture hours;
75 laboratory hours
Prerequisite: SMT1703 Rehabilitative
Massage 2

This course is designed to expand upon the training received in the core curriculum of Northwestern's School of Massage Therapy. A specific focus of this course is the integration of the protocol from Rehabilitative Massage 1 and 2 with NeuroMuscular Therapy (NMT) American Version TM and fascial work, offering a more complete technique protocol for clinical therapeutic massage. Training includes the complete NMT curriculum, as created by Judith Delaney of the NMT Center. Passing the final exams will credential you as a Certified NeuroMuscular Therapist (CNMT) through the NMT Center.

**SME2940 Advanced Integrative Clinic Experience:
Costa Rica**

1 credit (45 hours): 45 clinic hours
Prerequisite: SMT1701 Relaxation Massage 2

Students study abroad serving lower-income communities in Costa Rica. Massage therapy, acupuncture and chiropractic students provide culturally sensitive care in free or low cost clinics to underserved communities in rural Costa Rica. Patients served represent diverse populations and conditions. Application process required.

**SME2937 Advanced Integrative Clinic Experience:
Pillsbury House**

1.5 credits (59.5 hours): 4 lecture hours,
55.5 clinic hours
Prerequisite: SMT1701 Relaxation Massage 2

This course offers an opportunity to practice in a community based clinic within an integrative health care environment. Students are exposed to various scopes of practice and approaches of the disciplines involved as well as an integrative strategy to develop a treatment plan. An important aspect of this experience is the opportunity to work both independently and within a team structure - establishing massage therapy as an important piece of the treatment plan. Assessment processes and the nuances of SOAP documentation of chiropractic, acupuncture, medicine, and health coaching are explained. Understanding diverse populations and cultures, including those underserved by conventional healthcare, is a unique element of the course. Patients present with diverse conditions, offering a challenge to the student interested in advancing and developing their clinical reasoning and hands on skills.

NUE1112 Advanced Nutrition

1.5 credits (22.5 hours): 22.5 lecture hours;
Prerequisite: SNU1111 Human Nutrition

This course provides students the link between nutritional and dietary principles and chronic degenerative disease. Students are introduced to macronutrient balancing, micronutrients, supplements, popular diets, and their clinical applications. They also examine the principles for the promotion of health, wellness, and longevity through diet.

SME2938 Cancer and Massage Therapy

1.5 credits (31 hours): 12 clinic hours,
19 lecture hours

Prerequisite: SMT1701 Relaxation Massage 2

This course will cover cancer-related pathology, treatment side effects, massage contraindications and precautions. The benefits of massage and session adaptations for the patient with cancer are discussed. Students will learn to design a massage treatment plan based on the presentation of the patient; whether in active cancer treatment, in the advanced stages or years later in survivorship. Hands-on work to practice low impact techniques is included. A 12-hour clinical rotation working with patients in active cancer treatment at a major teaching hospital and/or outpatient cancer treatment center will follow.

SMT1164 Exploration of Career Environments

1.5 credits (22.5 hours), 22.5 lecture hours
Prerequisite: SMT1701 Relaxation Massage 2

This course is designed to assist the student in determining their ideal work environment. Massage therapy is offered in diverse settings. The experience of working on a cruise ship is very different than that of a hospital. This course will help the student explore the intricacies of the various environments (compensation, clientele, employer expectations, common modalities used, etc.), so they can make an informed decision regarding their employment goals. For an additional fee, will have the option of completing the "Strong Inventory" to assess job preferences and have the findings reviewed with the University counselor.

ELECTIVES: SCHOOL OF MASSAGE THERAPY (CONTINUED)

COURSE DESCRIPTIONS:

SMT1220 Functional Anatomy

1.5 credits (30 hours): 15 lab hours,
15 lecture hours

Prerequisite: SMT1210 Applied Anatomy &
SMT1702 Rehabilitative Massage 1

Discussion of muscle and joint function beyond simple actions, including physics and biomechanics of the human body. Students gain understanding of the body in motion and how anatomical structures work together to create different types of motion. Activities include inspecting, palpating, and moving these structures, enabling the student to link theory with experience to help further understanding of the human body and its movement potential. Students are introduced to imbalances or dysfunctions associated with soft tissue that are most commonly treated by manual and exercise therapists.

SME2939 Fundamentals of Hospital Based Massage Therapy

1.5 credits (30 hours): 19 lecture hours,
12 clinic hours

Prerequisite: SMT1701 Relaxation Massage 2

This course prepares students for working in a hospital setting. Common conditions, medical devices and unique elements of the hospital environment are addressed. Students will learn infection control practices, body mechanics, and session adaptations to serve medically frail patients. Communication with healthcare providers, patients and staff, along with appropriate boundary issues will be discussed. During the 12-hour clinical rotations at a major teaching hospital, students will receive hands-on experience in the hospital setting with hospital staff, medical documentation systems, a variety of medical conditions and diverse patient populations. Students may be required to meet certain vaccination requirements established by the hospital.

SMT1310 Geriatric Massage

1.5 credits (30 hours): 15 lab hours,
15 lecture hours

Prerequisite: SMT1701 Relaxation Massage 2

Geriatric massage is a form of massage that is specific for people over the age of 65 with age-related conditions such as: arthritis, Parkinsons, stroke, fragility and end of life issues. It helps improve circulation and joint mobility, eases aches and pains, and can help relieve symptoms of stress, depression, and loneliness. Students will be given the opportunity for hands on work that will deepen their understanding and compassion for the aging populations in a variety of settings under supervision of NWSU faculty.

SMT1800 Hydrotherapy

.5 credits (11 hours): 7.5 lab hours,
3.75 lecture hours

Prerequisite: SMT1700 Relaxation Massage 1

Hydrotherapy is the therapeutic use of water in any of its forms, for the treatment of illness and pain relief. This course will focus on the physiological effects of heat and cold on the body and address various methods of hydrotherapy that can be used within a massage therapy session. Practical applications of hot and cold therapies are included.

SMT1300 Infant Massage

1.5 credits (30 hours): 15 lab hours,
15 lecture hours

Prerequisite: SMT1701 Relaxation Massage 2

This course prepares students to teach parents techniques for massaging infants and growing children. The physical, emotional and mental changes associated with the developmental stages of infants and children are explored. Common childhood symptomologies and disabilities for which massage is indicated are discussed. Hands on teaching techniques include working with infant models.

SMT1400 Insurance Billing Practices for Massage Therapy

.5 credits (7.5 hours): 7.5 lecture hours

The decision of whether or not to accept insurance as a form of payment, in your office, can be a challenging one to make. This class discusses policies and procedures for proper insurance billing and successful reimbursement. A step by step process of how to submit claims for third party reimbursement, samples of claim forms and information on correct coding will also be included.

SMT2930 Penny George Institute Externship

1 credit (45 hours): 45 clinic hours

Prerequisite: SME2939 Fundamentals of
Hospital Based Massage Therapy

This is an externship opportunity available to students by application only. Typically two students will be selected per term to participate. The experience consists of weekly rotations at Abbott Northwestern Hospital with members of the Penny George Institute for Health and Healing team. Students will put into practice skills learned in the Hospital Based Massage Therapy Course as well as learn skills needed to be an integrative care practitioner in a hospital setting. Emphasis will be placed on learning the other CAM modalities available through the George Institute (relaxation techniques, guided imagery, energy healing, aromatherapy, etc.)

**ELECTIVES: SCHOOL OF MASSAGE THERAPY
(CONTINUED)**

COURSE DESCRIPTIONS:

SME1100 Reflexology 1

1.5 credits (30 hours): 15 lecture hours,
15 laboratory hours

Prerequisite: SBS1213 Human Anatomy &
Physiology 1

This is an intensive 7-week course on basic foot reflexology technique, introductory history, theory, principles, zones, and contraindications. Detailed muscular & bony anatomy of the foot and lower leg is also studied. The goal is to prepare the student to use reflexology as in independent modality or as a complement to other therapies.

SME1102 Reflexology 2

1.5 credits (30 hours): 15 lecture hours,
15 laboratory hours

Prerequisite: SME1100 Reflexology 1

This course expands the knowledge of techniques and procedures to effectively stimulate foot reflex areas. Students review systems of the body, common homeostatic imbalances and the role reflexology plays in maintaining optimum function and health. Pathologies common to the foot will also be covered.

SMT1320 Sports Massage

.5 credits (7.5 hours): 7.5 lecture hours

Massage is an important tool for providing specific benefits to athletes and active clientele. Sports massage is a system of massage techniques designed to address the needs of these populations. This class will address the purpose, effects, goals, and techniques used in sports massage. Also included is opportunity for hands-on practice.

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● DiplAc/CH/OM (NCCAOM)

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● BA, College of St. Thomas, 1972

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● MA, University of Minnesota, 1998
● BA, St. Olaf College, 1995

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● DC, Northwestern College of Chiropractic, 1991
● PhD, University of Minnesota, 1987
● MS, University of Minnesota, 1983
● BS, Saint Norbert College (Wisconsin), 1979

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● FCCS(C), 1979
● BS, University of Toronto, 1979
● DC, Canadian Memorial Chiropractic College, 1976

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- PhD, University of California, Los Angeles, 1982
- BA, Occidental College, Los Angeles, 1976

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- MS, University of Minnesota, 2001
- DC, Northwestern College of Chiropractic, 1993
- BA, University of Winnipeg, 1989

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- AAS, North Hennepin Junior College, 1969

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- BA, University of Nebraska-Lincoln, 1976

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- MS, University of Minnesota, 2003

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- SPHR, 1991
- BS, Arizona State University, 1982

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- MMA, Metropolitan State University, 1998
- BA, Iowa State University, 1977

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- BCACP, 1963
- MD, University of Minnesota, 1957
- BS, University of Minnesota, 1955

Lynne C. Hvidsten, *Associate Dean of Clinical Education for College of Chiropractic; Professor*

- MBA, University of Minnesota, 2008
- CCST, 1999
- BS, Northwestern College of Chiropractic, 1995
- DC, Northwestern College of Chiropractic, 1986

Michele J. Maiers, *Associate Dean of Research and Knowledge Transfer, Associate Professor*

- MPH, University of Minnesota, 2006
- DC, Northwestern College of Chiropractic at Northwestern Health Sciences University, 2000
- BS, Northwestern Health Sciences University, 2000

Anita L. Manne, *Director of Radiological Consultation Services; Professor*

- DACBR, 1985
- DC, Logan College of Chiropractic, 1981
- BS, Logan College of Chiropractic, 1979

Ruth Ann Marks, *Chief Records Officer and Registrar*

- BA, University of Minnesota, 1995

Scott J. Palmer, *Chief Development Officer*

- MBA, Liberty University, 2007
- BA, Metropolitan State University, 2002

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- MA, University of Denver, 1973
- BA, Bethel College, 1971

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* deceased

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- PhD, National University of Singapore, Singapore, 2005
- MS, Master of Science, University of London, U.K., 1998
- MBBS, University of Karachi, Pakistan, 1996

Noel D. Aldrich, Assistant Professor (2011)

- BS, Northwestern College, Roseville, MN, 1991

Ursula I. Amiot, Assistant Professor (2006)

- DC, Northwestern College of Chiropractic at Northwestern Health Sciences University, 2004
- BS, Minnesota State University, Mankato, 1999

James J. Amundson, Professor (1993)

- MEd, College of St. Scholastica, 2000
- CSCS, 1996
- DC, Northwestern College of Chiropractic, 1988
- BS, Bemidji State University, 1973

Kate Anderson, Instructor (2002)

- DPT, Saint Catherine University (2010)
- BS, Saint Catherine University (2007)
- Certificate, Cascade Institute of Massage Therapy, Eugene, OR (2000)

Nancy E. Anderson-Bierma, Associate Clinic Faculty (2002)

- MOm, Minnesota College of Acupuncture and Oriental Medicine at Northwestern Health Sciences University, 1999
- LAc
- DiplAc (NCCAOM)

Lori M. Baldwin, Assistant Professor (2007)

- MOm, Minnesota College of Acupuncture and Oriental Medicine at Northwestern Health Sciences University, 2004
- LAc

Julia D. Bartlett, Associate Professor (1996)

- FACO, 2005
- BS, Northwestern Health Sciences University, 2002
- DC, Northwestern College of Chiropractic, 1989

Kayla M. Bauer, Associate Clinic Faculty, Instructor (2009)

- NCTMB, 2006
- Certificate, School of Massage Therapy at Northwestern Health Sciences University, 2006

Mary E. Berg, Associate Professor (2003)

- MA, University of Minnesota, 1981
- BS, University of Minnesota, 1970

Thomas F. Bergmann, Professor (1981)

- DC, National College of Chiropractic, 1977
- BS, Northern Illinois University, 1969

Jennifer C. Blair, Associate Clinic Faculty (1999)

- MOm, Minnesota College of Acupuncture and Oriental Medicine at Northwestern Health Sciences University, 2001
- LAc
- DiplAc/CH/OM (NCCAOM)

Linda J. Bowers, Professor (1981)

- DACAN, 1992
- DACBN, 1988
- DABCI, 1987
- DABCO, 1985
- DC, Northwestern College of Chiropractic, 1981
- BS, University of Minnesota, 1978

Thomas S. Braem, Assistant Professor (2007)

- MS, St. Cloud State University, 1990
- BA, St. Olaf College, 1982

Karen A. Brezinka, Instructor (2002)

- BA, University of Minnesota, 1986
- NCTMB, 1997
- Certificate, Florida School of Massage, 1993

Barbara J. Bullentini, Associate Clinic Faculty (2004)

- Certificate, Colorado Center of Healing Touch International, 1998

Beth A. Burgan, *Assistant Professor (2001)*

- NCTMB, 1992
- Certificate, NeuroMuscular Therapist, 1991
- Certificate, Northern Lights School of Massage Therapy, 1988
- MFA, Kent State University, 1976
- MA, Kent State University, 1972

Katie A. Burns Ryan, *Associate Professor (2005)*

- DC, Northwestern College of Chiropractic at Northwestern Health Sciences University, 2002
- BS, University of Wisconsin, 1998

Adrienne C. Caldwell, *Lecturer (2011)*

- Certificate in Reflexology, 2005
- BA, Ripon College, 1995

Patricia M. Casello-Maddox, *Assistant Professor (2005)*

- DC, Northwestern College of Chiropractic, 1998
- BS, Northwestern College of Chiropractic, 1997
- MBA, St. Thomas University, 1987

Nita J. Champion, *Assistant Professor (2010)*

- ND, Southwest College of Naturopathic Medicine, 2007
- BA, University of Minnesota, 2002

Gary Steven Compton, *Associate Clinic Faculty (2006)*

- MOm, Minnesota College of Acupuncture and Oriental Medicine at Northwestern Health Sciences University, 2004
- BA, Oklahoma State University, 1971
- LAc
- DiplAc (NCCAOM)

Jennifer Connell, *Associate Clinic Faculty (2002)*

- MOm, Minnesota College of Acupuncture and Oriental Medicine at Northwestern Health Sciences University, 2001
- BA, Simmons College, Boston, 1989
- LAc
- DiplAc (NCCAOM)

Patricia D. Culliton, *Lecturer (2008)*

- MA, University of Northern Colorado, 1972
- BS, University of Northern Colorado, 1972

Alejandra Estrin Dashe, *Lecturer (2011)*

- PhD, University of Wisconsin-Milwaukee, 2008
- MS, Minnesota State University-Mankato, 1998
- BA, Gustavus Adolphus College, 1995

Donald B. Deal, *Assistant Professor (2004)*

- PhD, University of California, Los Angeles, 1982
- BA, Occidental College, Los Angeles, 1976

Sher Demeter, *Assistant Professor (2003)*

- MAc, Minnesota College of Acupuncture and Oriental Medicine at Northwestern Health Sciences University, 2003
- LAc
- DiplAc (NCCAOM)

Amrit Devgun, *Assistant Professor (2003)*

- Applied Ayurvedic Practitioner, 2003
- Certified Ayurvedic Practitioner, 2000
- ND, Canadian College of Naturopathic Medicine, Toronto, 1995

Ryne D. DeVries, *Assistant Professor (2005)*

- DC, Northwestern College of Chiropractic, 1988
- FACO, 2004

Donald L. Eggebrecht, *Professor (1988)*

- DABCO, 1991
- DC, Northwestern College of Chiropractic, 1986
- BA, University of Minnesota, 1978

Joan R. Elder, *Associate Clinic Faculty (2002)*

- BS, Northwestern College of Chiropractic, 1995
- DC, Life Chiropractic College, 1981

William C. Elkington, *Professor (1985)*

- DC, Northwestern College of Chiropractic, 1984
- BA, Hamline College, 1979

Nancy J. Erickson, *Associate Clinic Faculty (2011)*

- Certificate in Massage Therapy, 2010
- NCTMB, 2010
- BA, St. Cloud State, 1992

Terry A. Erickson, *Associate Professor (1994)*

- BS, Northwestern Health Sciences University, 2002
- DC, Palmer College of Chiropractic, 1988

Roni L. Evans, *Professor (1993)*

- MS, University of Minnesota, 2001
- DC, Northwestern College of Chiropractic, 1993
- BA, University of Winnipeg, 1989

Jeffrey A. Ewald, *Associate Professor (1983)*

- DABCO, 1991
- DC, Northwestern College of Chiropractic, 1981
- BA, University of Minnesota, 1974

Jeffrey W. Falk, *Associate Clinic Faculty (2001)*

- DC, National College of Chiropractic, 1971

Judith K. Faust, *Lecturer (2011)*

- PsyD, Widener University, 1994
- BA, Byrn Mawr College, 1974

Bradley A. Finer, *Professor (1985)*

- DACAN, 1992
- DC, Northwestern College of Chiropractic, 1982

Megan K. Flood, *Associate Clinic Faculty (2008)*

- NCTMB
- Certificate, School of Massage Therapy at Northwestern Health Sciences University, 2007
- BA, St. Olaf College, 1991

Jenny L. Gamer, *Associate Clinic Faculty (2010)*

- MOm, Minnesota College of Acupuncture and Oriental Medicine at Northwestern Health Sciences University, 2003
- LAc

Karen A. Ganzhorn, *Instructor*

- CLT, 1975

Amanda R. Gebhardt-Fitzgerald, *Assistant Professor (2006)*

- DC, Northwestern College of Chiropractic at Northwestern Health Sciences University, 2005
- BA, Jamestown College, 2001

Colleen A. Gegen, *Associate Clinic Faculty (2010)*

- MAc, Five Branches University, 2001
- LAc

Tao Gong, *Associate Professor (2003)*

- MS (China), Tianjin College of Traditional Chinese Medicine, 2001
- LAc
- DiplAc (NCCAOM)

Barbara J. Gosse, *Assistant Professor (2005)*

- MSOM, Southwest Acupuncture College, 1992
- LAc
- DiplAc (NCCAOM)

Sarah M. Gottfried, *Fellow, Wolfe-Harris Center for Clinical Studies (2007)*

- NCTMB
- Certificate, School of Massage Therapy at Northwestern Health Sciences University, 2007
- BA, College of St. Benedict, 2002

Catherine M. Gray, *Associate Clinic Faculty (2000)*

- DC, Northwestern College of Chiropractic, 1992

Patricia D. Gust, *Associate Clinic Faculty (2009)*

- MAc, Minnesota College of Acupuncture and Oriental Medicine at Northwestern Health Sciences University, 2007
- LAc

Christopher J. Hafner, *Associate Clinic Faculty*

- Diploma Om, Minnesota Institute of Acupuncture and Herbal Studies, 1996
- LAc
- DiplAc (NCCAOM), 1996

Christian M. Hanson, *Associate Clinic Faculty; Instructor (2009)*

- MOm, Minnesota College of Acupuncture and Oriental Medicine at Northwestern Health Sciences University, 2005
- LAc

Linda M. Hanson, *Fellow, Wolfe-Harris Center for Clinical Studies (2010)*

- DC, Northwestern College of Chiropractic at Northwestern Health Sciences University, 2009
- BS, University of Victoria, 2006

William J. Hejny, *Assistant Professor (1999)*

- DC, Northwestern College of Chiropractic, 1982

Glori L. Hinck, *Associate Professor (2003)*

- Certification, Instructional Technology, 2008
- DC, Northwestern College of Chiropractic, 1996
- MS, St. Cloud State University, 1994

K. Joanie Holst, *Assistant Professor (2001)*

- MS, Capella University, 2008
- NCTMB, 1992
- Certificate, NeuroMuscular Therapist, 1991
- Certificate, Northern Lights School of Massage Therapy, 1990
- BS, Mankato State University, 1979

Norman M. Horns, *Associate Professor (1995)*

- BCACP, 1963
- MD, University of Minnesota, 1957
- BS, University of Minnesota, 1955

Amy L. Horton, *Assistant Professor (2000)*

- DIBCN., 2005
- DC, Northwestern College of Chiropractic at Northwestern Health Sciences University, 2000
- CSCS, 1997
- BA, Carleton College (Minnesota), 1996

Xiaoyan Hu, *Associate Professor (2000)*

- BMed (China), Hubei Traditional Chinese Medical School, 1983
- LAc
- DiplAc (NCCAOM)

Victoria L. Huitt, Assistant Professor (2002)

- MAcO.M, Oregon College of Oriental Medicine, 1997
- LAc
- DiplAc (NCCAOM)

James R. Hulbert, Assistant Professor (1994)

- PhD, Iowa State University, 1985
- MS, Iowa State University, 1982
- MA, University of Iowa, 1975
- BA, University of Iowa, 1967

Lynne C. Hvidsten, Professor (1994)

- MBA, University of Minnesota, 2008
- CCST, 1999
- BS, Northwestern College of Chiropractic, 1995
- DC, Northwestern College of Chiropractic, 1986

Martin S. Javinsky, Instructor (2005)

- NCTMB, 2007
- Certificate, Northern Lights School of Massage Therapy, 1992

Yongping Jiang, Professor (2006)

- PhD (China), Shandong University of Traditional Chinese Medicine, 1995
- MMed (China), Shandong University of Traditional Chinese Medicine, 1992
- BMed (China), Shandong University of Traditional Chinese Medicine, 1983
- LAc
- DiplAc (NCCAOM)

Gary D. Johnsen, Lecturer (1995)

- MA, St. Mary's College (Minnesota), 1986
- BA, Canadian Bible College, 1982

Kerry L. Johnson, Lecturer (2005)

- DC, Life University, 1985

Valerie A. Johnson, Instructor (2000)

- Certificate, Neuromuscular Therapist, 1998
- NCTMB, 1995
- Certificate, Northern Lights School of Massage Therapy, 1995
- BS, University of Minnesota, 1974

Brady T. Jones, Lecturer (2011)

- MS, University of Minnesota, 2011
- BA, Carthage College, 2009

Kevin E. Kalb, Assistant Professor (1985)

- DC, Northwestern College of Chiropractic, 1983
- BS, Clarkson College of Technology, 1970

Sandra B. Kalnins, Lecturer (2010)

- DO, The Medical College of Wisconsin, 1992

Ann E. Kempke, Assistant Professor, (1998)

- MS, University of Illinois at Urbana-Champaign, 1995
- BA, College of St. Catherine, 1994

Julie E. Kempkes, Lecturer (2010)

- BS, St. Olaf College, 1992

Andrew S. Klein, Lecturer (1995)

- DACBSP, 1993
- DC, New York Chiropractic College, 1987
- MEd, Queens College, 1985
- BA, Herbert Lehman College (1981)

Jill M. Larsen, Associate Clinic Faculty (2007)

- MOm, Minnesota College of Acupuncture and Oriental Medicine at Northwestern Health Sciences University, 2002
- LAc

Link P. Larson, Professor (1993)

- CCST, 1998
- DC, Northwestern College of Chiropractic, 1986
- BS, St. Mary's College, 1975

Candace S. Lutt, Associate Clinic Faculty (2007)

- NCTMB, 2007
- Certificate, School of Massage Therapy at Northwestern Health Sciences University, 2007
- BA, Manchester College, 1995

Brent D. Leininger, Fellow, Wolfe-Harris Center for Clinical Studies (2009)

- DC, Palmer College of Chiropractic, 2006

Charles A. Lininger, Instructor (2000)

- BA, Michigan State University, 1970
- Certificate in Herbal Studies, Minnesota Institute of Acupuncture and Herbal Studies, 1996
- LAc
- DiplAc (NCCAOM)

Wei Liu, Professor (2000)

- BMed (China), Tianjin College of Traditional Chinese Medicine, 1988
- LAc
- DiplAc/CH (NCCAOM)

Jeffrey R. Lockhart, Associate Clinic Faculty (2006)

- NCTMB, 2005
- Certificate, School of Massage Therapy at Northwestern Health Sciences University, 2005
- BA, Iowa State University, 2000

Huan Ma, Associate Professor (2001)

- PhD (China), Tianjin College of Traditional Chinese Medicine, 2004
- MMed (China), Tianjin College of Traditional Chinese Medicine, 2000
- BMed (China), Tianjin College of Traditional Chinese Medicine, 1993
- LAc
- DiplAc (NCCAOM)

Anne H. Mackereth, Assistant Professor, Librarian (2001)

- MA, University of Arizona, 2000
- BA, The College of St. Catherine, 1990

Michele J. Maiers, Associate Professor (2000)

- MPH, University of Minnesota, 2006
- DC, Northwestern College of Chiropractic at Northwestern Health Sciences University, 2000
- BS, Northwestern Health Sciences University, 2000

Christopher C. Major, Assistant Professor (2003)

- DC, Northwestern College of Chiropractic at Northwestern Health Sciences University, 2006
- BS, University of Wisconsin, 2002
- ATC, Certified Athletic Trainer, 2002

Anita L. Manne, Professor (1985)

- DACBR, 1985
- DC, Logan College of Chiropractic, 1981
- BS, Logan College of Chiropractic, 1979

Margaret E. Miller, Associate Clinic Faculty (2004)

- MOm, Minnesota College of Acupuncture and Oriental Medicine at Northwestern Health Sciences University, 2002
- LAc
- DiplAc (NCCAOM)

Warren L. Moe, Professor (1982)

- CCSP, 1994
- BS, Los Angeles College of Chiropractic, 1982
- DC, Los Angeles College of Chiropractic, 1980
- AA, Waldorf College, 1970

Colleen A. Ahlers Moore, Associate Clinic Faculty (2010)

- MOm, Minnesota School of Acupuncture and Herbal Medicine, 1994
- LAc

Amy L. Mueller, Instructor (2011)

- BA, University of Wisconsin, Madison, 2000

Jonathan G. Mulholland, Assistant Professor (2010)

- DC, Northwestern College of Chiropractic at Northwestern Health Sciences University, 2000
- BS, Ithaca College, 2000

Jeffrey J. Novak, Assistant Professor (2003)

- DC, Northwestern College of Chiropractic, 1997

Amy L. Nystrom, Associate Clinic Faculty (2001)

- MSTOM, Pacific College of Oriental Medicine, 1998
- BS, Bastyr University, 1991
- BS, University of Wisconsin, 1986
- LAc
- DiplAc/CH (NCCAOM)

Paul J. Osterbauer, Associate Professor (1998)

- MPH, University of Washington, 1993
- DC, Northwestern College of Chiropractic, 1986
- BS, Northwestern College of Chiropractic, 1986

Deborah F. Owen, Assistant Professor (2000)

- MAC, New England School of Acupuncture, 2000
- LAc
- DiplAc (NCCAOM)

Tolulope A. Oyelowo, Associate Professor (1995)

- MS, New England College, 2009
- DC, Northwestern College of Chiropractic, 1989
- BA, University of Minnesota-Duluth, 1986

Anne M. Packard Spicer, Associate Professor (1991)

- DACCP, 2004
- DC, Northwestern College of Chiropractic, 1991
- BA, College of Saint Benedict (Minnesota), 1983

David R. Patterson, Associate Clinic Faculty (2006)

- DC, Northwestern College of Chiropractic, 1984

Stacy M. Peterson, Associate Professor (2000)

- DACRB, 2001
- DC, National College of Chiropractic, 1998
- BS, National College of Chiropractic, 1996
- BS, Duquesne University, 1995

John E. Pirog, Professor (2000)

- MSOM, Midwest Center for the Study of Oriental Medicine (Illinois), 1999
- LAc
- DiplAc/CH (NCCAOM)

Michael J. Przeslawski, Professor (1984)

- DC, Northwestern College of Chiropractic, 1983
- BS, Eastern Michigan University, 1976

Paul J. Ratté, *Assistant Professor (2003)*

- ND, National College of Naturopathic Medicine, 1997

Sandra L. Rebrovich, *Associate Clinic Faculty (2001)*

- DC, Northwestern College of Chiropractic at Northwestern Health Sciences University, 2000

Michele J. Renee, *Assistant Professor; (2008)*

- DC, Northwestern College of Chiropractic at Northwestern Health Sciences University, 2008
- BS, Northwestern Health Sciences University, 2008

Jeff A. Rich, *Assistant Professor (2005)*

- DACBR
- DC, Northwestern College of Chiropractic, 1996

Jane E. Richardson, *Assistant Professor (1982)*

- MEd, University of Minnesota, 1993
- MT (A.S.C.P.), 1973
- BS, University of Minnesota, 1972

Steven R. Schroer, *Lecturer (2011)*

- MA, University of Minnesota, 1998

Craig A. Schulz, *Assistant Professor (2001)*

- MS, University of Minnesota, 2008
- DC, Northwestern College of Chiropractic at Northwestern Health Sciences University, 1999

Faith A. Schumann, *Lecturer (2011)*

- DC, Northwestern College of Chiropractic at Northwestern Health Sciences University, 2006
- BS, University of Minnesota, 2000

Della J. Shupe, *Assistant Professor (1997)*

- MA, University of Denver, 1973
- BA, Bethel College, 1971

Elizabeth L. Simensen, *Associate Clinic Faculty (2001)*

- MOm, Minnesota College of Acupuncture and Oriental Medicine at Northwestern Health Sciences University, 2002
- LAc
- DiplAc (NCCAOM)

Jodell M. Skaufel, *Assistant Professor (2006)*

- DC, Northwestern College of Chiropractic at Northwestern Health Sciences University, 2007
- BS, St. Cloud State University, 1989

David J. Smith, *Associate Professor (1996)*

- CCSP
- DC, Northwestern College of Chiropractic, 1983

Sara M. Swanson, *Assistant Professor (2008)*

- DC, Northwestern College of Chiropractic at Northwestern Health Sciences University, 2001
- BA, University of Wisconsin, 1993

Joseph J. Sweere, *Professor (1986)*

- FICC
- DACBOH, 1992
- DABCO, 1975
- DC, Northwestern College of Chiropractic, 1961

Kim L. Swineheart, *Associate Professor (1994)*

- DC, Northwestern College of Chiropractic, 1996
- BS, Central Michigan University, 1980

Ellen K. Tansey, *Associate Clinic Faculty (2010)*

- MSAc, Pacific College of Oriental Medicine, 2004
- LAc

Barry H. Taylor, *Assistant Professor (2004)*

- DC, Northwestern College of Chiropractic at Northwestern Health Sciences University, 2004
- BA, University of North Dakota, 1996

Jason C. Thoen, *Assistant Professor (2002)*

- PhD, Purdue University, 2001

Mary M. Tuchscherer, *Professor (1985)*

- DC, Northwestern College of Chiropractic, 1991
- PhD, University of Minnesota, 1987
- MS, University of Minnesota, 1983
- BS, Saint Norbert College (Wisconsin), 1979

Sara E. Urevig, *Assistant Professor (2006)*

- MOm, Minnesota College of Acupuncture and Oriental Medicine at Northwestern Health Sciences University, 2005
- LAc
- DiplAc/CH (NCCAOM)

Verena Van Fleet, *Associate Professor (2004)*

- PhD, University of Zurich, 1994
- MEd, University of Zurich, 1991
- MS, University of Zurich, 1986

Heidi A. Vander Velden, *Lecturer (2006)*

- MA, University of Minnesota, 2006
- BS, University of Wisconsin, 2000

Blong B. Vang, *Assistant Professor (2008)*

- DC, Northwestern College of Chiropractic at Northwestern Health Sciences University, 2002

Corrie A. Vihstadt, *Fellow, Wolfe-Harris Center for Clinical Studies (2008)*

- MOm, Minnesota College of Acupuncture and Oriental Medicine at Northwestern Health Sciences University, 2008
- BA, University of Minnesota Morris, 2000
- Diplom (NCCAOM)

Michele M. Vincent, *Assistant Professor (2005)*

- DC, Northwestern College of Chiropractic at Northwestern Health Sciences University, 2003
- BS, Northwestern Health Sciences University, 2002
- AA, Wisconsin Indianhead Technical College, 1984

Stephani L. Waldron-Trapp, *Assistant Professor (2007)*

- ND, University of Bridgeport, 2005
- BS, St. Cloud State University, 2000

Daniel H. Wallace, *Professor (1978)*

- PhD, University of Minnesota, 1977
- BS, St. Cloud State University, 1972
- AA, North Hennepin Junior College, 1970

Mei Wang, *Professor (2001)*

- PhD (China), Shandong University, 2002
- MMed (China), Henan University of Traditional Chinese Medicine, 1999
- BMed (China), Henan University of Traditional Chinese Medicine, 1986
- LAc
- DiplAc/CH (NCCAOM)

Sarah L. Weaver, *Assistant Professor (2000)*

- MOm, Minnesota College of Acupuncture and Oriental Medicine at Northwestern Health Sciences University, 2008
- MFA, University of Minnesota, 2000
- NCTMB, 1992
- BA, Oberlin College, 1989
- LAc

Kristine K. Westrom, *Associate Professor (2006)*

- MD, University of Minnesota (1985)
- BA, Gustavus Adolphus College, 1979

Jerrold R. Wildenauer, *Lecturer (2009)*

- DC, Northwestern College of Chiropractic, 1978
- BS, Upper Iowa University, 1981

Jonathan C. Williams, *Professor (1993)*

- FAACP, 2001
- DABCI, 1996
- DAAPM, 1991
- DC, Northwestern College of Chiropractic, 1989
- BA, University of Plano, 1974

Jane E. Wittich, *Professor (1981)*

- PhD, University of Minnesota, 1981
- BSN., University of Minnesota, 1970

John B. Wolfe, Jr., *Associate Professor (1989)*

- JD, William Mitchell College of Law, 1989
- DC, Northwestern College of Chiropractic, 1985

Xianhui Yang, *Assistant Professor (2003)*

- MOm, Minnesota College of Acupuncture and Oriental Medicine at Northwestern Health Sciences University, 2003
- BS (China), Peking University, 1991
- LAc
- DiplAc/CH (NCCAOM)

Jinming Yue, *Associate Professor (2004)*

- BS (China), Henan University of Traditional Chinese Medicine, 1996
- LAc
- DiplAc/CH (NCCAOM)

Zachary J. Zachman, *Professor (1987)*

- DABCO, 1989
- BS, Northwestern College of Chiropractic, 1988
- DC, Northwestern College of Chiropractic, 1985

Sarah L. Zamastil, *Instructor (2003)*

- NCTMB, 2003
- Certificate, School of Massage Therapy at Northwestern Health Sciences University, 2003
- BS, University of Minnesota, 2001

Hua Zhu, *Associate Clinic Faculty (2005)*

- MS, University of Florida, 1994
- BMed (China), Bai Qui En Medicine University, 1987
- LAc

CREDENTIAL REFERENCES

AA	Associate in Arts	DO	Doctor of Osteopathic Medicine
AAS	Associate in Applied Science	FAACP	Fellow of the American Academy of Chiropractic Physicians
ALA	Associate in Liberal Arts	FACO	Fellow of the American Board of Chiropractic Orthopedists
ASCP	American Society of Clinical Pathologists	FCCS	Fellow of the College of Chiropractic Sciences
ATC	Certified Athletic Trainer	FIACN	Fellow of the International Academy of Chiropractic Neurologists
BA	Bachelor of Arts	FICC	Fellow of the International College of Chiropractic
BCACP	Board Certified Anatomic and Clinical Pathology	JD	Juris Doctor
BFA	Bachelor of Fine Arts	LAc	Licensed in Acupuncture
BMed	Bachelor of Medicine (China)	LLB	Bachelor of Laws
BS	Bachelor of Science	LPN	Licensed Practical Nurse
BSME	Bachelor of Science in Mechanical Engineering	MA	Master of Arts
BSN	Bachelor of Science in Nursing	MAc	Master of Acupuncture
CCSP	Certified Chiropractic Sports Physician	MAOM	Master of Acupuncture and Oriental Medicine
CCST	Chiropractic Certification in Spinal Trauma	MBA	Master of Business Administration
CLT	Certified Laboratory Technician	MBBS	Bachelor of Medicine and Surgery (Pakistan)
CSCS	Certified Strength and Conditioning Specialist	MD	Medical Doctor
DAAPM	Diplomate of the American Academy of Pain Management	MEd	Master of Education
DABCC	Diplomate of the American Board of Chiropractic Consultants	MFA	Master of Fine Arts
DABCI	Diplomate of the American Board of Chiropractic Internists	MMed	Master of Medicine (China)
DABCO	Diplomate of the American Board of Chiropractic Orthopedists	MMA	Master of Management and Administration
DABCSF	Diplomate of the American Board of Chiropractic Sports Physicians	MOm	Master of Oriental Medicine
DABFE	Diplomate of the American Board of Forensic Examiners	MPH	Master of Public Health
DACAN	Diplomate of the American Chiropractic Academy of Neurology	MS	Master of Science
DACBOH	Diplomate of the Chiropractic Board of Occupational Health	MSAc	Master of Science in Acupuncture
DACBN	Diplomate of the American Chiropractic Board of Nutrition	MSEd	Master of Science in Education
DACBR	Diplomate of the American Chiropractic Board of Radiologists	MSIE	Master of Science in Industrial Engineering
DACBSP	Diplomate of the American Chiropractic Board of Sports Physicians	MSOM	Master of Science in Oriental Medicine
DACCP	Diplomate of the Academy Council of Chiropractic Pediatrics	MSTOM	Master of Science in Traditional Oriental Medicine
DACRB	Diplomate of the American Chiropractic Rehabilitation Board	MT	Medical Technologist
DC	Doctor of Chiropractic	NCCAOM	National Certification Commission for Acupuncture and Oriental Medicine
DIBCN	Diplomate of the International Board of Chiropractic Neurology	NCTMB	National Certification in Therapeutic Massage and Bodywork
Diploma Om	Diploma of Oriental Medicine	ND	Doctor of Naturopathic Medicine
DiplAc	Diplomate in Acupuncture	PharmD	Doctor of Pharmacy
DiplCH	Diplomate in Chinese Herbology	PhD	Doctor of Philosophy
DiplOM	Diplomate in Oriental Medicine	PsyD	Doctor of Psychology
		RD	Registered Dietitian
		SPHR	Senior Professional in Human Resources

The material contained here is for informational purposes only. Northwestern Health Sciences University has the right to add to, change or deviate from this information at any time, with or without notice.

This information does not constitute, nor is it intended to constitute, a contract with any student.

This information replaces and supercedes all prior information.

NONDISCRIMINATION POLICY

It is the policy of the Board of Trustees that Northwestern Health Sciences University does not unlawfully discriminate on the basis of race, color, creed, religion, national or ethnic origin, age, gender, marital status, sexual orientation, gender identity, disability, veteran/military status, genetic information, status with regard to public assistance, membership or activity in a local commission, or any other characteristic protected by law, in administration of and access to the University's educational, research, and clinical programs, students organizations and events, employment, and other University-administered activities.

Further, it is the policy of the Board of Trustees of Northwestern Health Sciences University to maintain the University community as a place of work and study for staff, faculty, students, and patients free of racial or sexual harassment.

Inquiries regarding compliance and grievance procedures can be directed to: Deborah Hogenson, Human Resources Director, Northwestern Health Sciences University.

STUDENT RIGHT TO KNOW

In accordance with the Student Right to Know Act (Title I of Public Law 101-542), graduation rates for degree-seeking students are available to all current or prospective students from the Office of Admissions and will be provided upon request. However, as a general statement, Northwestern has high graduation rates in all its programs.

In accordance with the Student Right to Know Act (Title II of Public Law 101-542), students may receive, on request, information about campus security, including campus crime statistics from the Office of Admissions. However, as a general statement, Northwestern has an extremely low crime rate and an excellent security program.

FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT (FERPA) AND STUDENT RECORDS

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

1. The right to inspect and review the student's education records within 45 days of the day that the University receives a request for access. Students should submit to the Registrar, or other appropriate official, a written request that identifies the record(s) they wish to inspect. The Registrar, or other appropriate official, will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the University official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.
2. The right to request an amendment of the student's education records that the student believes are inaccurate or misleading.

Students may ask the University to amend a record they believe is inaccurate or misleading. They should write the University official responsible for the record, clearly identify the part of the record they want changed and specify why it is inaccurate or misleading.

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 his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

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 that permits disclosure without consent is disclosure to school officials with legitimate educational interests. A school official is a person employed by the University in any administrative, supervisory, academic or research position, 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, collection agent or community-based mentor); a person serving on the Board of Trustees; or a student serving on an official committee, such as a disciplinary or grievance

committee, or assisting another school official in performing his or her 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.

Upon request, the University discloses education records without consent to officials of another school in which a student seeks or intends to enroll. The University shall make reasonable efforts to notify a student of such a record request.

4. The right to file a complaint with the United States 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
US Department of Education
400 Maryland Ave SW
Washington, DC 20202-4605

The following information is public information, unless the student has requested non-disclosure:

- Name;
- Address;
- E-mail address;
- Telephone number;
- Dates of enrollment;
- Enrollment status (full-time, part-time, not enrolled);
- Major/course of study;
- Name of adviser/program director;
- Class/term;
- Academic awards and honors;
- Degree(s) received;
- Photograph;
- Past and present participation in officially recognized sports and activities;
- Physical factors (e.g. height, weight) of athletes.

Students have the option to suppress directory information. If this option is selected, no information pertaining to attendance will be released and the student's name and other information will not appear in University directories. Students who receive financial aid provide consent for release of certain directory and other information to lenders and/or guarantors as a consequence of their financial aid contract(s).

Students must express in writing their wish to suppress directory information to the Office of the Registrar or other appropriate official.

Under the Act, the University reserves the right to disclose educational records or components thereof,

to parents of dependent students as defined according to the Internal Revenue Code of 1954, Section 152 (as amended). All students will be assumed to be independent unless a parent presents a certified copy of their most recent Federal Income Tax Form establishing the student's dependent status.

No official transcript will be released if the student or graduate is delinquent or in default either to the University or to any student loan-servicing agency handling any student loans undertaken while enrolled. Requests must be submitted one week prior to the date transcripts are needed. Official transcripts must be mailed directly to the designated recipient. They cannot be released to the student.

A student file is also kept on each student from the time of application. These files are also confidential and are available for administration, faculty and the individual student. Students may examine their individual file at any time, but it may not be removed from the Registrar's office.