

Why Northwestern?

For more than 60 years, 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 Northwestern College of Chiropractic, the Minnesota College of Acupuncture and Oriental Medicine, the School of Massage Therapy, and the Certificate Program in Integrative Health and Wellness 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 integrative health and wellness practitioners, doctors of chiropractic, massage therapists, and practitioners of acupuncture and Oriental medicine can display to their patients.

Why Northwestern? The answer is best told through 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

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Calendar 2006-2008

The full academic calendar for 2006-2008, 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.

Catalog Contents

2006–2008

Why Northwestern?

General Information	2
Calendar 2006-2008	2

A FOCUSED VISION

Mission Statement	6
Vision Statement	6
Goals, Guiding Principles and Fundamental Values	6
Community of Caring	7
Northwestern's Commitment to Diversity	7
Assessment of Learning Outcomes	7

THE DIVERSITY OF OUR PROGRAMS

About the University	11
University Facilities	11
About Northwestern College of Chiropractic	11
About the Minnesota College of Acupuncture and Oriental Medicine	12
About the School of Massage Therapy	12
About the School of Undergraduate and Graduate Studies	13
Accreditation, Approvals and Legal Status	13

MORE THAN 60 YEARS OF EXCELLENCE

University History	15
--------------------------	----

STUDENT OPPORTUNITIES

Student Life	17
Orientation	17
Student Conduct	17
University Student Handbook	17
Services of Student Affairs	17
Peer Tutoring Service	17
Counseling Service	17
Disabled Students: Applicants and Students	18
Student Leave of Absence	18
International Students	18
Student and Exchange Visitor Information System (SEVIS)	18
Student Government and Organizations	19
Student Government	19
Student Organizations	19
University Health Services	19
Information Technology	19
E-mail Policy	19

Dial-up Access	19
Personal Computer Requirement	19
The Campus	20
University Bookstore	20
Greenawalt Library	20
The Wolfe-Harris Center for Clinical Studies	20
De Rusha Clinical Education Center	21
The Edith Davis Teaching Clinic	21

OUR LOCATION:

MINNESOTA AND THE TWIN CITIES	23
--	----

EXPERIENCE IN A

PIONEERING CLINIC SYSTEM	24
---------------------------------------	----

HELPING TO GUIDE

YOUR CAREER PATH

Continuing Education Department	25
Alumni Associations	25
Career Services	25
Occupational Outlook	26
Northwestern College of Chiropractic	26
Minnesota College of Acupuncture and Oriental Medicine	26
School of Massage Therapy	26

OUR FINANCIAL POLICIES

General Financial Policy	27
Audit Policy	27
Withdrawal Policy	28
Return of Title IV Funds Policy	28
Northwestern Health Sciences University Refund Policy	29
Financial Aid Programs	29
Financial Aid Eligibility	30
Enrollment Status Definitions	30
Financial Aid and Satisfactory Academic Progress	30
Financial Aid Suspension and Appeal	31
Financial Aid Counseling	31
Federal Student Aid at a Glance	31
Federal Pell Grant (PELL)	31
Federal Supplemental Educational Opportunity Grants (FSEOG)	31
Perkins Loan	32
Federal Family Education Loan Program (FFELP)	32
Parent PLUS and Graduate PLUS Loan	32
Federal Work Study (FWS)	32

Student Eligibility (Drug Conviction)	33
Minnesota Higher Education Services Office	33
Alternative/Private Loan Programs	33
Scholarships	33
Standard Repayment, Extended Repayment and Consolidation Options	33
Canadian and International Students	33
Cohort Default Rate	34
Tuition and Fees	34
Managing Your Financial Aid	34

Why Northwestern College of Chiropractic?

STRONG ACADEMIC EDUCATION, PHILOSOPHY AND EXPERIENCE

Chiropractic Philosophy	37
Educational Objectives	38
Admission Information	38
Admission to the College	38
Entrance Requirements	38
Qualifications	39
Responsibility of Applicant	40
Minnesota Immunization Requirement	40
Application Procedure	40
Selection of Candidates	40
Tuition Deposit Policy	40
Transfer Application	41
Advanced Placement	41
Non-Program Students	41
Foreign Applicants	42
Educational Requirements of Non-U.S. Citizens	42
Bachelor of Science Degree in Human Biology	42
Statement of Purpose	42
Course Requirements	43
Section A: Biology Concentration	43
Section B: Four-Course B.S. Completion Sequence	43
Admission Requirements	43
Graduation Requirements	43
Program Changes	43
B.S. Completion Courses	43
Pre-Professional Program	44
Pre-Professional Courses Offered at Inver Hills Community College	44
Course Descriptions	44
Pre-Professional Courses Offered at Northwestern	45
Course Descriptions	45

A SUPERB CLINICAL EXPERIENCE

University Health Services	45
Northwestern's Natural Care Centers and Community Based Internship	46
Clinical Rotations	46
Preceptorship Program	46

Academic Policy	46
Trimester Credits	46
Attendance Policy	46
Academic Evaluation and Grades	46
Academic Honors	47
Regulations Concerning Probationary Status	47
Graduation	47
Graduation Requirements	47
Graduation Rate	47
Licensure	47
Curriculum Overview	47
Course Load	48
Course Sequence	48
Curriculum Organization	48
Anatomy and Pathology	48
Physiology and Biochemistry	48
Microbiology and Immunology	48
Chiropractic Principles and Philosophy	48
Chiropractic Methods and Therapeutics	49
Diagnostic and Clinical Sciences	49
Diagnostic Imaging	49
Business Foundations	49
Clinician Development	49
Clinical Education	49
Course List	49, 50
Course Descriptions	55
Electives	64

Why The Minnesota College of Acupuncture and Oriental Medicine?

MASTER'S DEGREES AND NATIONALLY TRAINED FACULTY

Statement of Purpose	67
Philosophy	67
Goals	67
Programs of Study	68
Educational Objectives	68
Admission Information	68
Admission to the College	68
Entrance Requirements	68
Qualifications	69
Responsibility of Applicant	69
Minnesota Immunization Requirement	70
Application Procedure	70
Selection of Candidates	70
Tuition Deposit Policy	70
International Applicants	70
Transfer Application	71
Transfer Credit Policy	71
Transfer Credit	71
Waivers of Requirement	72
Non-Program Students	72

Academic Policy	72
Transfer Credits	72
Attendance Policy	72
Academic Evaluation and Grades	72
Academic Honors	73
Academic Standing	73
Regulations Concerning Probationary Status	73
Graduation	73
Graduation Requirements	73
Graduation Rate	73
Certification and Licensure	73
The Programs	74
Master of Oriental Medicine	74
Master of Acupuncture	74
The M.C.A.O.M. Clinical Experience	74
Course List	75
Course Descriptions	81

Why The School of Massage Therapy?

COMPREHENSIVE SCIENCE-BASED TRAINING

Mission Statement	91
Educational Objectives	91
Massage Therapy as Health Care	91
Massage Therapy as a Profession	91
Approach to Learning	92
Class Size and Attendance	92
Admission Information	92
Admission to the School	92
Entrance Requirements	92
Qualifications	92
Responsibility of Applicant	93
Minnesota Immunization Requirement	93
Application Procedure	93
Selection of Candidates	94
Tuition Deposit Policy	94
Transfer Credit Policy	94
International Applicants	94
Payment	95
Readmission	95
Non-Program Students	95
Academic Policy	95
Academic Policy Credits	95
Grading Policy	95
Notes on Grading	96
Use of the Grade I	96
Course Attendance and Punctuality	96
Graduation	96
Graduation Requirements	96
Graduation Rate	97
Professional Licensure, Registration, or Certification	97

Study Time	97
Curriculum Overview	97
Course List: Day Program	98
Course List: Evening Program	99
Course Descriptions	101

Why Integrative Health and Wellness?

THE FUTURE IS PATIENT-CENTERED HEALTH CARE

Introduction	107
Statement of Purpose	107
Philosophy	108
Program Objectives	108
Program Overview	108
Program Structure	108
Program Changes	108
Admission Information	108
Admission to the Program	108
Entrance Requirements	108
Qualifications	109
Responsibility of Applicant	109
Minnesota Immunization Requirement	109
Application Procedure	109
Selection of Candidates	109
Tuition Deposit Policy	109
Transfer Application	110
Articulation Agreement with Walden University	110
Payment	110
Readmission	111
Graduation Requirements	111
Course List	111
Course Descriptions	112

Why Northwestern?

WE'RE A COMMUNITY OF CARING

Board of Trustees	113
President's Cabinet	113
Administration	114
Faculty Emeriti	115
Faculty	115
Credential References	121
Index	122
Nondiscrimination Policy	127
Student Right To Know	127
Family Educational Rights and Privacy Act (F.E.R.P.A.)	127

Why Northwestern?

A Focused Vision

THE MISSION OF THE UNIVERSITY

The character and aspirations of an academic institution are commonly conveyed through its mission documents, and such is the case with Northwestern Health Sciences University.

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 collective vision is to develop an environment that fosters exemplary, innovative and ethically based educational programs in natural health care. We will also support clinical research, provide leadership for the development of collaborative and integrated health care models, prepare students for successful careers, provide lifelong learning opportunities and be of service to our community. Through assessment of the academic achievement of our learners and the effectiveness of our research and service programs, we will demonstrate our commitment to excellence and continuous improvement.

GOALS, GUIDING PRINCIPLES, AND FUNDAMENTAL VALUES

- We will provide an educational environment that fosters effective teaching and learning.
- We will improve the effectiveness of our educational, clinical and community service functions through institutional research and assessment.
- We will practice the science, art and ethics of our professional skills at the highest possible level, informed by evidence and clinical experience.
- We will create an institutional culture that values and cultivates respect, responsibility, diversity and communication.
- We will encourage and support clinical research as being necessary for improving the outcomes of care and the credibility of all healing professions.
- We will work with professional associations, educational institutions, individual practitioners and others in the health care community to promote public health.
- We will establish an organizational structure and process supporting the responsibility of faculty for the ongoing assessment, development and improvement of our educational programs.
- We will establish a working and learning environment that fosters equity, respect, trust and the opportunity for personal and professional development.
- We will provide programs and support services that respond to the changing needs of our learners.
- We will emphasize the professional values, attitudes and behavior that we desire of our students in our academic programs.
- We will build stronger connections between our students and alumni.
- We will behave in a fiscally responsible manner in all aspects of the University operations.
- We will promote health and wellness throughout the University.
- We will prepare our graduates for practice in contemporary health care environments.

- We will support the professional activities, development and autonomy of the health care disciplines that exist within the University.
- We believe in and will promote a philosophy that the mind, body and spirit are inseparable in all matters of health.
- We believe that shared governance is essential to the health and vitality of our educational institution, therefore, we will establish mechanisms for collaboration among students, staff, faculty and administration.
- All clinical curricula will be supported by a basic science foundation, knowing that this is essential for assessment, diagnosis, clinical problem-solving, treatment, preventive health and patient education.
- We value the strength a shared vision imparts that is based on institutional mission, values and principles.

COMMUNITY OF CARING

At the heart of Northwestern Health Sciences University is a simple yet profound core value which is manifest 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 action and activity in which we engage and leads to inevitable 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 a profession that makes 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 stakeholders.
- 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 man, woman and child.
- We care for our University, which has carved 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 six 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 retain a diverse student body and workforce;
- 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 define diversity as it pertains to Northwestern Health Sciences University which is that, *“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.



NORTHWESTERN
HEALTH SCIENCES
UNIVERSITY



"Being a student at a university not only allows you to experience other natural health care modalities, but also provides excellent informational, educational and networking opportunities."

"Northwestern has an incredible group of faculty, administrators and staff who really care about their students. They all want you to succeed and will help you every step along the way."

"Everyone I worked at Northwestern with was so helpful throughout my decision-making process. I was impressed with how well-organized everything was, from the financial aid and registrar's office to the clinical internship programs."



"The clinical internship allows me to apply my education and interact with real patients. The clinic faculty are helpful and they give each student individual attention, as well as support my ability to start my own practice after graduation. I will be ready!"

"Northwestern is an educational leader in total body care, which incorporates the mind, body, and spirit connection. Students develop an in-depth understanding of the complexities of the systems of the body. Our limited enrollment provides students with the exceptional education needed to prepare them for successful careers in chiropractic."

"The Minnesota College of Acupuncture and Oriental Medicine provides me with the knowledge, confidence and skills that I need to become a successful practitioner. Northwestern has challenged my ways of thinking, allowing me to learn from respected and skilled, full-time faculty."

"The School of Massage Therapy has a challenging curriculum that prepares students for careers in a wide variety of settings. The program offers a well-rounded, science-based education with instructors of the highest quality."

Why Northwestern?

The Diversity of Our Programs

“Being a student at a university not only allows you to experience other natural health care modalities, but also provides excellent informational, educational and networking opportunities.”

– Lisa Heilman, massage therapy student

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:

- Northwestern College of Chiropractic, offering the doctor of chiropractic degree;
- Minnesota College of Acupuncture and Oriental Medicine (formerly the Minnesota Institute of Acupuncture and Herbal Studies), offering the master of acupuncture and master of Oriental medicine degrees;
- The School of Massage Therapy, offering a professional certificate program;
- The School of Undergraduate and Graduate Studies, including the Bachelor of Science Degree Program in Human Biology and the Certificate Program in Integrative Health and Wellness;
- The Wolfe-Harris Center for Clinical Studies;
- The University public clinic system, including four 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 Relations 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 230,000-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 NORTHWESTERN COLLEGE OF CHIROPRACTIC

Founded in 1941, Northwestern College of Chiropractic (N.W.C.C.) 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 six decades, excellence has been nurtured and inspired at Northwestern 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 six outpatient clinics, more than 150 community-based private-practice clinics and final term preceptorship opportunities around the world. The University’s public clinic system recorded more than 65,000 patient visits last year, making Northwestern 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 credit 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 of science degree in Human Biology while enrolled in the chiropractic program. Information about the Bachelor of Science degree program is available through the Office of Admissions.

ABOUT THE MINNESOTA COLLEGE OF ACUPUNCTURE AND ORIENTAL MEDICINE

The Minnesota College of Acupuncture and Oriental Medicine (M.C.A.O.M.) 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, M.C.A.O.M. has established itself in the Twin Cities area as a premier provider of education and clinical services in acupuncture and Oriental medicine. M.C.A.O.M. student interns provide acupuncture and Oriental medicine services in the Edith Davis Teaching Clinic on the University campus, as well as health care clinics and community agencies throughout the metropolitan area.

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. M.C.A.O.M. 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 based on their own personal style.

The curriculum for the Master of Oriental Medicine program provides more than 3,000 hours of didactic and clinical instruction in acupuncture, Chinese herbology 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 University admits new acupuncture and Oriental medicine students in January and September of each calendar year. Transfer students may be allowed to enter in the Summer trimester, which begins in April/May.

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 School of Massage Therapy is accredited by the Commission on Massage Therapy Accreditation (C.O.M.T.A). Northwestern is the first massage therapy school in Minnesota to receive accreditation from C.O.M.T.A.

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 36-semester credit, 780-hour program emphasizes a solid foundation in the basic sciences, long a Northwestern hallmark; more than 340 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 assembled outstanding teacher-practitioners, including some of the most experienced and prominent therapists in Minnesota.

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 nine lecture halls located throughout the University for classes held in a lecture format.

Students receive a professional certificate in massage therapy upon successful completion of the program.

Students may enroll in one of two convenient program options: the day program or the evening program. The day program requires three academic trimesters to complete. The evening program requires four academic trimesters to complete.

ABOUT THE SCHOOL OF UNDERGRADUATE AND GRADUATE STUDIES

The School of Undergraduate and Graduate Studies offers a Bachelor's Degree Completion Program in Human Biology and a certificate program in Integrative Health and Wellness. The Bachelor of Science Degree Program (B.S.) offers students enrolled in the doctor of chiropractic program the opportunity to complete an undergraduate degree in human biology. The Integrative Health and Wellness Certificate Program provides training for health care professionals and post-graduate students seeking to advance their capacity to develop and implement patient-centered services and programs that promote healthy living.

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 (N.C.A.). The N.C.A. 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 and 2001. The University's next comprehensive evaluation has been designated for the 2009-2010 academic year.

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 (C.C.E.). 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 C.C.E. 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. C.C.E. is the agency to which complaints about the compliance of the program with C.C.E. Standards should be addressed.

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 (A.C.A.O.M.), 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 the next program evaluation is designated for the 2009-2010 academic year.

Accreditation Commission for
Acupuncture and Oriental Medicine
Maryland Trade Center 3
7501 Greenway Center Dr., Suite 820
Greenbelt, MD 20770
Voice: (301) 313-0855
Fax: (301) 313-0912
Web: <http://www.acaom.org>

The School of Massage Therapy program offered by the University is accredited by the Commission on Massage Therapy Accreditation (C.O.M.T.A.), 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. The next program evaluation is scheduled for the 2008-2009 academic year.

Commission on Massage Therapy Accreditation
1007 Church St., Suite 302
Evanston, IL 60201
Voice: (847) 869-5039
Fax: (847) 869-6739
Web: <http://www.comta.org>

Northwestern Health Sciences University is registered with the Minnesota Higher Education Services Office. Registration is not an endorsement of the institution. Registration does not mean that credits earned at the institution can be transferred to other institutions or that the quality of the educational programs would meet the standards of every student, educational institution or employer.

The Veterans Education Unit of the Minnesota Department of Education approves Northwestern Health Sciences University for veterans' education.

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 Services of the United States Department of Treasury. 501C (3) status is reserved for organizations operating for educational, religious or charitable purposes.

Why Northwestern?

More Than 60 Years 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 Northwestern's dedication to excellence in education began in 1941 with the founding of Northwestern College of Chiropractic. 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, D.C., 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 it attracted.

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 Upward Bound development program and 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, Saint Paul, 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, B.A., L.Ac., Dipl.Ac. (N.C.C.A.O.M.), joined the University in 1999. The Institute has become the Minnesota College of Acupuncture and Oriental Medicine (M.C.A.O.M.), which offers both the master of acupuncture and master of Oriental medicine degrees. In 2000, the University introduced its School of Massage Therapy. 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. Beginning in the fall of 2004, the University began offering a certificate program in Integrative Health and Wellness, the first of its kind in the Midwest.

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.

Why Northwestern?

A Vibrant Student Life

“Student Senate is a vibrant mix of students from all programs who are constantly striving to improve the student experience. Through the student clubs and organizations, students have the opportunity to have fun, relax and expand their education far beyond their program’s curriculum.”

– Chris Grier, chiropractic student

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 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. The University has the right and responsibility 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.

University Student Handbook

The University Student Handbook contains rules, regulations, procedures and academic standards that affect students of the University. Information on

grievance procedures involving the University or its faculty members are also in the handbook. The topics contained in the handbook are clarified during New Student Orientation and students are responsible for being aware of the policies contained in the handbook and noting changes as they occur. The University Student Handbook is available online at <http://www.nwhealth.edu> (follow the Student Affairs links) and additional copies are available in the Office of Student Affairs and the Greenawalt Library. 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.

Services of Student Affairs

Peer Tutoring Service

The Peer Tutoring Service is provided by the Student Affairs Office 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 Student Affairs office. The Student Affairs Office 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 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, joint counseling with a partner, or support groups with other students confronting similar life issues. Counseling services are provided with the strictest confidentiality. Unless requested by the student, no information is given to anyone about who was seen or what was discussed. Additional information on student rights, confidentiality, clinical record policy and emergency attention can be obtained in the Student Affairs office.

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 Student Affairs office.

Disabled Students: Applicants and Students

Qualified persons shall receive reasonable accommodations for access to educational opportunities, programs and activities of Northwestern. The Student Affairs Office is responsible for 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 necessary support services.
2. It is the responsibility of the individual student to inform the Student Affairs Office of any special aids or services that he/she may need as the result of a disability.
3. Students must submit directly to the Student Affairs Office 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 Student Affairs Office, except as permitted by the student expressly for providing support services to that student.
4. As needed, the Student Affairs Office 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 Student Affairs Office 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 or denial of accommodation.
6. Complaints concerning the provision of accommodations to disabled students will be handled through the Grievance Process specified in the University Student Handbook.

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 five-day Emergency Leave of Absence. A student must call the Registrar to request this leave, and the Registrar will notify the student's instructors. The program Academic Standards Committee may grant an extension of the Leave of Absence, if necessary. Once the student returns to classes, they are obligated to speak with their instructors to create a plan to make up 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 Immigration and Naturalization Service.

Student and Exchange Visitor Information System

Northwestern Health Sciences University has full approval from the U.S. Immigration and Naturalization Service 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 Immigration and Naturalization Service and Department of State throughout a student's program in the U.S.

SEVIS enables schools to submit school certification applications; update certification information; submit updates to the U.S. Immigration and Naturalization Service that require adjudication; and create and update F-1 (academic) student and dependent records. Designated School Officials (DSO's) 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, the community and the University, and to endeavor to continually improve 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 Student Affairs Office. 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 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 provides and sponsors extracurricular clubs and activities throughout the year including aerobics, hockey, baseball, softball, volleyball, basketball, soccer and martial arts. The Northwestern 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 various free-weight equipment. Students can receive information about using the Fitness Center from the Student Affairs Office.

University Health Services

A variety of health care options are available to students through University Health Services, located on campus in the De Rusha Clinical Education Center. Services available include general physical examination; chiropractic assessment and treatment; X-ray and laboratory evaluation; acupuncture; and massage. Care is provided by upper-term students under the supervision of faculty clinicians/supervisors.

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 <http://mail.nwhealth.edu> on the World Wide Web. The Information Technology Department provides support for GroupWise e-mail users.

Dial-up Access

Students may request an Internet dial-up account at no charge, through the Information Technology Department. University dial-up accounts provide free Internet access for students residing within the Twin Cities metropolitan area (which includes most of area codes 612, 651, 952 and 763). Students residing outside the Twin Cities metropolitan dialing area will incur long-distance charges when using a University dial-up account.

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 student computer assistants during the evening hours and lunch periods. Tutoring is available on the following topics:

- Internet basics;
- Introduction to computers;
- Using Microsoft Word;
- 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 primary purpose of the 10,000-square-foot Greenawalt Library is to provide information resources 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 practitioners. Members of the general public may also use the library's resources.

An online library catalog provides easy access to the library's specialized collection of more than 17,000 books and bound periodicals. The library subscribes to approximately 300 journal titles relating to natural health care, health sciences and life sciences. Users of the library have access to a variety of major health science databases. Interlibrary loan services link Northwestern to local, regional, national and international networks of libraries, providing students, faculty and staff access to resources beyond the

library's holdings. The University computer network provides access to the Internet, class-related materials and standard office software programs.

Professional librarians provide group and individual instruction to students, faculty and staff in the use of library resources. The librarians have developed the library's web site, which 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 current journal subscriptions (with links to full text 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, D.C., 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.

The Wolfe-Harris Center for Clinical Studies

The Wolfe-Harris Center for Clinical Studies (W.H.C.C.S.), named for William Harris, D.C., one of the University's largest benefactors, and John B. Wolfe, D.C., 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 W.H.C.C.S. 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 \$6 million in research funding from the National Institutes of Health, U.S. Department of Health and Human Services and other agencies. The W.H.C.C.S. is also committed to translating research into clinical practice. Faculty have participated in several systematic reviews of the literature and are actively involved in integrating

research evidence with clinical judgment and patient preferences into Northwestern's curricula and clinical settings.

Students have long played an important role in the research program at the W.H.C.C.S. 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 W.H.C.C.S. is to train the next generation of Complementary and Alternative Medicine (C.A.M.) researchers. Undergraduate and post-graduate opportunities are available for qualified individuals through a collaborative research training program offered through Northwestern Health Sciences University, the Berman Center for Clinical and Outcomes Research, and the University of Minnesota. The Minnesota Consortium for C.A.M. Clinical Research is funded through the National Center for Complementary and Alternative Medicine (N.C.C.A.M.) and as part of its mission, provides practical and academic training experiences in clinical research methods to students currently involved in C.A.M. educational programs. For more information please see their website at <http://www.mncam.org/> for the Minnesota Consortium for C.A.M. Clinical Research.

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; an X-ray laboratory; 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, D.C., 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 Minnesota 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 Oriental 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 R. Davis, B.A., L.Ac., Dipl.Ac., the founder and first president of the Minnesota Institute of Acupuncture and Herbal Studies (M.I.A.H.S.), which is now known as the Minnesota College of Acupuncture and Oriental Medicine (M.C.A.O.M.). Davis is 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 ongoing contribution to the acupuncture and Oriental medicine community in Minnesota.

"Being a student at a university not only allows you to experience other natural health care modalities, but also provides excellent informational, educational and networking opportunities."

"Northwestern has an incredible group of faculty, administrators and staff who really care about their students. They all want you to succeed and will help you every step along the way."

"Everyone I worked at Northwestern with was so helpful throughout my decision-making process. I was impressed with how well-organized everything was, from the financial aid and registrar's office to the clinical internship programs."



"The clinical internship allows me to apply my education and interact with real patients. The clinic faculty are helpful and they give each student individual attention, as well as support my ability to start my own practice after graduation. I will be ready!"

"Northwestern is an educational leader in total body care, which incorporates the mind, body, and spirit connection. Students develop an in-depth understanding of the complexities of the systems of the body. Our limited enrollment provides students with the exceptional education needed to prepare them for successful careers in chiropractic."

"The Minnesota College of Acupuncture and Oriental Medicine provides me with the knowledge, confidence and skills that I need to become a successful practitioner. Northwestern has challenged my ways of thinking, allowing me to learn from respected and skilled, full-time faculty."

"The School of Massage Therapy has a challenging curriculum that prepares students for careers in a wide variety of settings. The program offers a well-rounded, science-based education with instructors of the highest quality."

Why Northwestern?

Our Location: Minnesota And The Twin Cities

"Living in the Twin Cities is great! Minneapolis and St. Paul are frequently ranked among the best places to live, and there are so many ways to enjoy nature, sports, shopping, music and theater . . . when you're not studying!"

– Travis Livesay, chiropractic student

Voted the most livable state in the United States, 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, Ordway Theater and the Theatre de la Jeune Lune (a theater company that divides its time between the Twin Cities and Paris), 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 individ-

ual 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 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.

Why Northwestern?

Experience in a Pioneering Clinic System

"The clinical internship allows me to build on my education and interact with real patients. The clinic faculty are very helpful and they give each student individual attention. I am very confident in my ability to start my own practice after graduation. I'll be ready!"

– Hamza Adem, chiropractic student

The Northwestern Health Sciences University Clinic System is comprised of:

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

Northwestern's Natural Health Care Centers are unique, integrative natural health care clinics providing chiropractic, acupuncture, Oriental medicine, massage therapy, naturopathic medicine and healing touch 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.

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, a women's shelter, a rehabilitation facility for the disabled, inpatient hospital settings, a senior care facility and at community events. 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.

Why Northwestern?

Helping To Guide Your Career Path

"The Office of Alumni Relations and Career Services is always there to field questions, provide guidance, and support the professional success of Northwestern students and alumni."

– Jason Erickson, massage therapy student

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 advancement and worth of every individual by providing diverse educational opportunities to those who seek them.

The Continuing Education Department sponsors more than 150 continuing education programs each year, including topics in nutrition, radiology, orthopedics, neurology, sports injuries, acupuncture, pediatrics, Oriental medicine, rehabilitation, massage therapy and occupational health, 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.

Where appropriate, Northwestern students may also 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.

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 Northwestern College of Chiropractic, The Minnesota 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 Relations and Careers 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. Career Services 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 Relations.

Most graduates go directly into clinical practice in a location of their choice. Career Services assists

students in helping with their career-related decisions. Current opportunities available in clinical practice are posted in the Office of Alumni Relations 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

Northwestern College of Chiropractic

The U.S. Department of Labor Occupational Outlook for 2006-2007 states that, for the practice of chiropractic, "Job prospects are expected to be good...Employment of chiropractors is expected to grow faster than the average for all occupations through the year 2014 as consumer demand for alternative health care grows. Total job openings for doctors of chiropractic between 2000-2010 are projected to be 12,000: a 23-percent increase in the professional market. The rapidly expanding older population, with their 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 Relations and Career Services.

Minnesota 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 Chinese 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 U.S. Department of Education on the horizon, an important step for stabilizing and standardizing massage therapy education and practices will soon be 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 U.S. Department of Labor Occupational Outlook for 2006-2007 notes "employment for massage therapists is expected to increase faster than average over the period from 2004 to 2014 as more people learn about the benefits of massage therapy." Total job openings for massage therapists between 2000-2010 are projected to be 18,000, a 30.4 percent increase in the professional market (U.S. Department of Labor Monthly Labor Review, November 2001, p. 69).

Why Northwestern?

Our Financial Policies

"Everyone I worked at Northwestern with was so helpful throughout my decision-making process. I was impressed with how well-organized everything was, from the financial aid and registrar's office to the clinic internship programs."

– Marie Butchert, acupuncture and Oriental medicine student

GENERAL FINANCIAL POLICY

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 (U.S. 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 Office of Student Records and Financial Services.

Students who have not paid tuition by the end of the third week of class are to sign a note 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 Services Office, and the office has determined that the applications are complete and ready for submission, and have been submitted to the appropriate lender.)
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 (U.S. 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, before registration begins for the subsequent trimester, or he/she 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.

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. 6.

AUDIT POLICY

A student who registers as an auditor should request audit status at registration. As an auditor, a student will enroll in, pay tuition and fees for, and attend classes but not complete assignments or take examinations. The symbol AU will automatically

appear in the grade column of the student's transcript. The fee for such a course is the same as for credit. 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.

Prerequisite requirements for audited courses must be completed. Audits are allowed on a space-available basis with priority given to full-credit registrants. Colleges may have additional requirements to meet prior to registering as an auditor. Prior to auditing it is necessary to have approval from the appropriate course/program administrator as directed by the Registrar. This policy does not include students who are encouraged or required to audit a course for the purpose of remediation or mitigating academic deficiencies.

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 Student Records and Financial Services Office. 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 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 Aid 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;
- P.L.U.S. Loan;
- Federal P.E.L.L. Grant;
- Federal S.E.O.G.

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 105 days and a student withdraws on the 52nd day (49.52 percent of the enrollment period) or the 53rd day (50.47 percent of enrollment period), the student would get a 25 percent tuition refund. However, a student who withdraws on the 54th 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, tuition and fees will be deducted by the Accounting Office and the balance will be issued as a check within 14 days. Students may pick up checks in the Student Records and Financial Services 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:

Northwestern College of Chiropractic: Federal graduate/health profession limits.

Master’s of Acupuncture and Oriental Medicine: Federal graduate limits:

- When entering with a bachelor’s degree: graduate status.
- When entering without a four-year degree: fifth-year undergraduate status until you become a Trimester 3 student; then graduate status.

School of Massage Therapy Certificate: First-year, first-time federal undergraduate limits and State of Minnesota resources.

Pre-Professional Program (graduate/professional preparatory) undergraduate course work required to complete the dual degree of doctor of chiropractic and bachelor of science in human biology: Federal fifth-year undergraduate limits.

Integrative Health and Wellness Certificate Program: Not eligible for federal, state or institutional aid. There may be limited private loans available.

FINANCIAL AID ELIGIBILITY

Students may receive financial aid if they meet federal, state, private and institutional eligibility criteria and are in good academic standing with the institution. Some of the eligibility criteria are U.S. 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	Three-quarter time	Full-time
College of Chiropractic Trimesters 1-9	7.5 credits	11 credits	15 credits
Trimester 10	5 credits	7.5 credits	10 credits
College of Acupuncture and Oriental Medicine	5 credits	7 credits	9 credits
School of Massage Therapy	6 credits	9 credits	12 credits
Pre-professional/ Preparatory	6 credits	9 credits	12 credits
Integrative Health and Wellness:			
Graduate courses	5 credits	7 credits	9 credits

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:

Doctor of Chiropractic; B.S. Degree in Human Biology; Pre-Professional Program (graduate/professional preparatory) – undergraduate course work required to complete the dual degree of doctor of chiropractic and bachelor of science in human biology:

- Maintaining a minimum grade point average (G.P.A.) on all work attempted or academic standing consistent with graduation requirements; that is, to be making satisfactory progress toward a doctor of chiropractic degree and a bachelor of science degree in human biology.
- Completing the minimum trimester status requirements for which assistance was received.
- The student may not receive federal financial aid beyond 150 percent of the normal time to complete the doctor of chiropractic degree and the bachelor of science degree in human biology. Therefore, a student may receive financial aid during periods of full-time enrollment equivalent to: Chiropractic – 15 trimesters or 331.80 credits; Pre-Professional Program – three terms or 20 credits.

Master's of Acupuncture and Oriental Medicine

- Students must pass all required courses with a grade of 75 percent. Students may repeat failed or "no credit" courses.
- For elective courses, no credit is given without a passing grade, but a failed elective need not be repeated. Other courses may be substituted to make up the total credit requirement.
- Full-time students must pass 75 percent of enrolled courses each year.

- No credit is given for withdrawals or failures.
- Credit for an incomplete is granted only on completion of the specified missing parts, within the time frame provided by the instructor.
- Clinical performance is evaluated each trimester. To pass, the average score must be appropriate for the intern's stage of progress in the clinic. Particular areas with scores below expectation will have to be re-mediated.
- 100 percent clinical attendance is required. All missed hours must be made up.
- Students must pass clinical competency exams prior to beginning supervised clinical practice and at various stages throughout clinic.
- The student may not receive federal financial aid beyond 150 percent of the normal time to complete the master's of acupuncture or Oriental medicine. Therefore, a student may receive financial aid during periods of full-time enrollment equivalent to: Acupuncture – 12 trimesters or 166.35 credits; Oriental Medicine – 13.5 trimester or 216.60 credits

School of Massage Therapy

- Students must maintain a cumulative grade point average (G.P.A.) of 2.00 (C) or better. Satisfactory progress is evaluated at the conclusion of each academic trimester.
- The student may not receive federal financial aid beyond 150 percent of the normal time to complete the certificate of massage therapy. Therefore, a student may receive financial aid during periods of full-time enrollment equivalent to: Massage Therapy – 4.5 trimesters or 54 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'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, Midstream 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. Midstream Counseling is also provided halfway through the graduate programs so that students are aware of their up-to-date aggregate aid total and monthly payments. The emphasis for Exit Counseling shifts to more specific information about loan repayment and debt management which includes Stafford and Perkins Loans.

Students may access information on their federal aid debt history at <http://www.nsls.ed.gov> or <http://www.loanlocator.org>.

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 U.S. 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 Student Records and Financial Services.

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. U.S. federal guidelines and institutional policies determine amounts.

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 Family Education Loan Program (FFELP)

The FFELP program consists of the Subsidized Stafford, Unsubsidized Stafford and PLUS Loans. The Federal Stafford Loan Program (subsidized and/or unsubsidized) 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 U.S. dollars.)

Graduate/Health Profession (Chiropractic):

Up to \$8,500 subsidized Stafford Loan (need-based); total (subsidized and unsubsidized) \$18,500. As a recognized health profession, up to \$12,500 in additional unsubsidized. Aggregate total is \$189,125, including undergraduate studies.

Graduate (Acupuncture and Oriental Medicine):

Up to \$8,500 subsidized Stafford Loan (need-based); total (subsidized and unsubsidized) \$18,500. Aggregate total is \$138,500, including undergraduate studies. Those students who enter the program without a bachelor's degree are under the fifth-year and higher undergraduate limits. At Trimester 3, the student is eligible for graduate limits.

Undergraduate Students [Pre-Professional Program (graduate/professional preparatory) – undergraduate course work required to complete the dual degree of doctor of chiropractic and bachelor of science in human biology]:

Students taking prerequisites for graduate study (fifth year and higher) may receive up to \$5,500 undergraduate Stafford Loan limit; total (subsidized and unsubsidized) \$5,500 dependent student; total (subsidized and unsubsidized) \$10,500 independent student. Aggregate total is \$23,000 (dependent) and \$46,000 (independent).

Undergraduate (Massage Therapy):

First-year, first-time, undergraduate limits. \$2,625 subsidized Stafford Loan; total (subsidized and unsubsidized) \$2,625 dependent; total (subsidized and unsubsidized) \$6,625 independent. Aggregate total is \$23,000 (dependent), \$46,000 (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. Students may contact the Financial Services Office for special circumstances and/or budget adjustments.

Parent PLUS and Graduate PLUS Loan Parent Loan for Undergraduate Students (PLUS):

At U.S. domestic schools, the parent may obtain additional loans for the dependent student, undergraduate 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 and 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 Work Study eligibility, students must stop in the Student Records and Financial Services Office. All FWS funds are subject to I.R.S. tax rules and regulations. The Human Resources Department determines wages.

Northwestern also participates in the community service program, which encourages students to get involved in community service activities. Opportunities are coordinated through the community relations coordinator and include events, literacy or reading programs, clinic receptionists, speaking programs to children, and more.

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, baccalaureate or graduate degree program at an eligible school; or
- Non-Minnesota resident who is enrolled at least half-time in a certificate, associate, baccalaureate 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 is available at <http://www.ohe.state.mn.us>.

ALTERNATIVE/Private LOAN PROGRAMS

There are alternative loans available (including those for international students). However, there are limitations, so contact the Financial Services Office for more information.

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 recommendation. 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.

STANDARD REPAYMENT, EXTENDED REPAYMENT AND CONSOLIDATION OPTIONS

Standard repayments normally begin six months after the student is no longer enrolled. Minimum monthly payment is \$50 (U.S. dollars). Generally a loan must be repaid within 10 years. Extended repayment allows more than 10 years of level, graduated or income-sensitive options. Consolidation combines all of your federal student loans into a single, new loan and smaller monthly payments. There are no application fees and flexible repayment options are available to suit your current financial situation. When your income increases, you can always make additional payments towards principal to help reduce interest over the long run. There are no prepayment penalties.

CANADIAN AND INTERNATIONAL STUDENTS

For those who qualify, students may apply for Canadian and Provincial Loans, Northwestern International Scholarships, Canadian Tuition Reciprocity and Ed-Invest Canadian alternative loans. There may be other private loans, but with limitations.

COHORT DEFAULT RATE

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

TUITION AND FEES

For information on tuition and fees, visit the Admissions section of our website 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. Management of your financial aid requires that you:

- 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 web site locations;
- 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 Websites and Consumer Information

U.S. 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.healthypayment.com>

<http://www.ed-invest.com>

<http://www.mygreatlakes.com>

<http://www2.eac-easci.org>

<http://www.salliemae.com>

<http://www.finaidfacts.org>

For further details on any programs, contact the Student Records and Financial Services Office at (952/800) 888-4777, ext. 6.

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



NORTHWESTERN
COLLEGE OF
CHIROPRACTIC

"Being a student at a university not only allows you to experience other natural health care modalities, but also provides excellent informational, educational and networking opportunities."

"Northwestern has an incredible group of faculty, administrators and staff who really care about their students. They all want you to succeed and will help you every step along the way."

"Everyone I worked at Northwestern with was so helpful throughout my decision-making process. I was impressed with how well-organized everything was, from the financial aid and registrar's office to the clinical internship programs."

"The clinical internship allows me to apply my education and interact with real patients. The clinic faculty are very helpful and they give each student individual attention, as well as help me develop my ability to start my own practice after graduation. I will be ready!"



"Northwestern is an educational leader in total body care, which incorporates the mind, body, and spirit connection. Students develop an in-depth understanding of the complexities of the systems of the body. Our limited enrollment provides students with the exceptional education needed to prepare them for successful careers in chiropractic."

"The Minnesota College of Acupuncture and Oriental Medicine provides me with the knowledge, confidence and skills that I need to become a successful practitioner. Northwestern has challenged my ways of thinking, allowing me to learn from respected and skilled, full-time faculty."

"The School of Massage Therapy has a challenging curriculum that prepares students for careers in a wide variety of settings. The program offers a well-rounded, science-based education with instructors of the highest quality."

Why Northwestern College of Chiropractic?

Strong Academic Education, Philosophy and Experience

“Northwestern is an educational leader in total body care, which incorporates the mind, body, and spirit connection. Students develop an in-depth understanding of the complexities of the systems of the body. Our limited enrollment provides students with the exceptional education needed to prepare them for successful careers in chiropractic.”

– Link Larson, D.C., associate professor

NORTHWESTERN COLLEGE OF CHIROPRACTIC

Chiropractic Philosophy

Northwestern College of Chiropractic’s model of health care embraces the responsibility to respond to the health care needs of the patient, as they relate to clinical problems and promotion of optimal health. This model is based on the principle that the body’s innate recuperative power is affected by and integrated through the nervous system.

With this underlying philosophy, chiropractic’s patient-centered perspective incorporates both therapeutic and preventive approaches. The therapeutic approach promotes improved health through the diagnosis and management of clinical conditions. The preventive approach requires attention to the patient’s health behaviors, and the maintenance of optimum body structure and neural function.

Chiropractic recognizes and places particular attention on the adjustment, correction, and prevention of the subluxation complex in the preservation and restoration of health.

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. Northwestern will provide the environment for thought, observation and other experiences through which you, as a student of chiropractic, will develop your philosophy of health care based upon strong chiropractic principles.

Northwestern College of Chiropractic’s goals are to develop and teach an approach that is open to and examines everything. Northwestern seeks out value and incorporates the strengths thereby identified into a dynamic science-based technique program rooted in a strong philosophical model of health. This integrated-methods curriculum attaches value to established, research-supported knowledge; to consistency with biomechanical principles; and to an openness to new procedures requiring investigation.

Each patient is unique in clinical practice. Therefore, the management of each patient’s care needs to be unique to the individual. Quality health care involves science as well as art, technical competence, good communication skills, and compassion and empathy for the patient, all of which combine to form an individual’s philosophy. One doctor’s approach to patient care is unlikely to be a mirror image of another doctor’s approach. This is not because one doctor is right and another doctor is wrong. Rather, each is using his or her wisdom and skill in the best interest of the patient.

The faculty members of Northwestern are leaders in innovative methods in the education and training of the chiropractic clinician. They strive for a leadership position in the initiation and conduct of clinical research; the documentation and establishment of professional standards of care and guidelines; and the delivery of high-quality patient care in the community.

During your years at Northwestern, you will begin to develop your personal philosophy regarding clinical

chiropractic health care. We promise to provide mentors to challenge you, leaders for you to follow, and peers with whom to grow.

Educational Objectives

The educational objectives of the doctor of chiropractic program, established by the faculty, are consistent with the accreditation standards of the Council on Chiropractic Education, which require that graduates are prepared to:

1. Practice direct-contact health care as a portal-of-entry provider for patients of all ages and genders;
2. Assess the patient's general health status, complaints and problems leading to a diagnosis. Specific elements of patient assessment include complete health history; review of systems; a physical, biomechanical and neurological examination; analysis of vertebral and extra-vertebral subluxation; and diagnostic imaging when clinically indicated; clinical laboratory; and/or specialized diagnostic procedures;
3. Develop a goal-oriented case management plan that addresses any subluxations or other neuro-biomechanical problems, and that may include rehabilitation and/or other therapeutic modalities;
4. Develop appropriate doctor/patient relationships with continuity in the chiropractic management of health problems and coordination of care with other health care providers;
5. Promote wellness by assessing health risk, and providing problem-related general and public health information and lifestyle counseling.

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 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. (See "Transfer Application".)

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 (U.S. dollars). It is the responsibility of the applicant to read this catalog and comply with all provisions and instructions.

Entrance Requirements

The following minimum requirements for admission apply to all candidates seeking admission to Northwestern 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 (90 semester hours or 135 quarter hours) of college credit acceptable toward a baccalaureate degree (see required distribution in next column). 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 hours 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:

Subject	Minimum Semester Hours	Minimum Quarter Hours
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One academic year Of Biology (with labs) <i>Animal/Vertebrate General Biology/Zoology, Anatomy, Physiology, Microbiology</i>	6	9
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One academic year of General/Inorganic Chemistry (with labs) <i>General Chemistry I and II or variations in course title (Principles of Chemistry, Inorganic Chemistry, Introductory Chemistry)</i>	6	9
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One academic year of Organic Chemistry (with labs) <i>Usually titled Organic Chemistry I and II</i>	6	9
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One academic year of Physics/Quantitative Sciences/Biomechanics <i>First semester: algebra or trigonometry-based General Physics I, with lab. Second semester: General Physics II, Inferential Statistics (from a math or statistics department), Biomechanics, Kinesiology or Exercise Physiology for majors. The second semester must be taken for a mini- mum of three semester credits.</i>	6	9
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Psychology <i>General Psychology, Principles of Psychology, Introductory Psychology</i>	3	4.5
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English, Literature or Speech	6	9
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.		

Humanities or Social Sciences	15	22.5
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.		

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 and Technical Writing, and Medical Terminology.		

TOTAL	90	135
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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 I must be taken before General Chemistry II. 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.

3. Applicants must have earned a cumulative grade point average (G.P.A.) of at least 2.5 and a science G.P.A. of at least 2.0. All course work is counted toward the cumulative G.P.A. and all science courses are included for the science G.P.A., not just selected course work. Applicants should realize that these are minimum grade points. To ensure acceptance, a more competitive grade point is desirable.

4. For prospective chiropractic students who are interested in completing their undergraduate science prerequisites, Northwestern offers courses through the Pre-Professional Program. 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 College of Chiropractic.

Qualifications

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

1. 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;
2. 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;
3. Ability to determine depth and intensity of manual pressure and force, as applied in the performance of common chiropractic and adjunctive procedures and techniques;
4. 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;
5. 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.

Persons who have been convicted of any felony or misdemeanor of a violent or sexual nature 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 reserves the right to conduct a criminal background check on all applicants.

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 last 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 is to submit a fully completed application for admission. You may obtain an application online at <http://www.nwhealth.edu> or from the Office

of Admissions. The application for admission must include:

1. A properly completed application for admission. Please type or print neatly;
2. An application processing fee of \$50 (U.S. 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: Please 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. A service-orientation and 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 (G.P.A.) 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 (U.S. 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 Application

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. Submit an official transcript from the chiropractic institution(s) previously attended;
3. Submit two letters of recommendation from faculty members of the chiropractic institution previously attended, as well as a letter from that institution's registrar indicating the student applicant is leaving that college in good standing and could continue studies at their present chiropractic institution;
4. The applicant's academic record must further allow for the student to be admitted without probation or other restriction, as defined by Northwestern policies;
5. Transfer credit may be granted for courses completed with a grade of C or better from another chiropractic institution. Those courses must have content similar to corresponding Northwestern courses of the same name and level. The Northwestern registrar will determine that comparability;
6. All credits that the student wishes to transfer to the Northwestern program must be applied for and posted to the applicant's Northwestern records prior to matriculation;
7. A transfer student must complete at least five trimesters of resident study in the Northwestern program prior to graduation;
8. Excessive indebtedness as a result of financial aid

borrowing will be a factor in the Admissions Committee's decisions regarding acceptance of a transfer student. The Student Records and Financial Services Office will set upper limits of previous indebtedness;

9. These policies are subject to updating and modification. 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.

Foreign Applicants

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. Have the endorsement of the chiropractic organization in his or her home country (if such an organization exists);
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. We reserve the right to request proof of English proficiency of any applicant.
 - 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 207 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, P.O. Box 6154, Princeton, NJ 08541-6154, U.S.A.
3. Provide evidence of having financial resources to complete a minimum of one year of education. Official bank statement indicating sufficient funds is required;
 4. Have foreign transcripts evaluated by an international transcript evaluation service such as World Education Services, Inc. (P.O. Box 5087, Bowling Green Station, New York, NY 10274, U.S.A.), with official copies of the course-by-course evaluation being 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.

We recommend that all foreign students be aware of the licensure requirements in the country in which they wish to practice. A student can contact the chiropractic licensing board in their province or country for that information.

Educational Requirements of Non-U.S. Citizens

The following non-U.S.-based programs are recognized as being equivalent to the pre-professional requirements of the C.C.E.-U.S.A. Successful completion of one of these programs, in its entirety, will normally fulfill the entrance requirements to Northwestern. However, students who have completed these programs should contact the Office of Admissions for the most current information. Northwestern also reserves the right to request a transcript review by an evaluation service.

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 to the doctor of chiropractic program. Students from Mexico should contact the Office of Admissions for the most current information.

BACHELOR OF SCIENCE DEGREE IN HUMAN BIOLOGY

The Bachelor of Science in Human Biology (B.S.) is a degree completion program for students enrolled in Northwestern College of Chiropractic. The B.S. program is designed for eligible students to complete the course requirements for a bachelor's degree 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 bachelor's degree 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 bachelor's 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 in favoring 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.

Course Requirements and Curriculum Overview

The B.S. degree 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. Four-course B.S. completion sequence offered one course per trimester in Trimesters 6 through 9 at Northwestern (Section B).

Section A: Biology Concentration

11010 Biochemistry 1 (5 credits) - Trimester 1
11330 Biochemistry 2 (2 credits) - Trimester 3
36350 Clinical Nutrition 1 (4 credits) - Trimester 5
14220 Embryology (2 credits) - Trimester 2
13010 Gross Anatomy 1 (5.5 credits) - Trimester 1
13120 Gross Anatomy 2 (5.5 credits) - Trimester 2
15010 Histology 1 (3.75 credits) - Trimester 1
15120 Histology 2 (3.5 credits) - Trimester 2
25150 Infectious Diseases (2 credits) - Trimester 5
16140 Immunology and Clinical Microbiology (3.5 credits) - Trimester 4
12120 Neuroscience 1: PNS (4 credits) - Trimester 2
12230 Neuroscience 2: CNS (3 credits) - Trimester 3
17030 Pathology 1 (3 credits) - Trimester 3
17140 Pathology 2 (3 credits) - Trimester 4
11120 Physiology 1 (4.5 credits) - Trimester 2
11230 Physiology 2 (4.5 credits) - Trimester 3
32030 Principles of Evidence-Based Health Care (1 credit) - Trimester 3
25250 Public and Preventive Health (2 credits) - Trimester 5

Total: 61.75 credits

Section B: Four-Course B.S. Completion Sequence

Courses unique to the B.S. completion program:
UGE3710 Communication Skills (3 credits)
UGE3720 Philosophy of Science (3 credits)
UGE3730 Ethical Foundations (3 credits)
UGE3740 Understanding and Using Research (3 credits)

Total: 12 credits

Students typically enroll for one 3-credit course each trimester during Trimester 6 through Trimester 9.

Admission Requirements

1. Completion of pre-chiropractic entrance requirements (60 of the required 90 semester credits will be counted toward the B.S. degree);
2. Cumulative grade point average (G.P.A.) of 2.0 or better for courses in Section A;
3. Passing grades in each course listed in Section A.

Graduation Requirements

1. Cumulative grade point average (G.P.A.) of 2.0 or better for courses 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.

B.S. COMPLETION COURSES

UGE3710 Communications Skills

3 credits

Knowledge and skills for personal and professional communication, including (a) effective communication style—preferred means of attending, perceiving, interpreting and responding; (b) active listening and attending skills; (c) information literacy skills — identifying, accessing, organizing, integrating, evaluating and applying; (d) effective communication to inform vs. engage vs. persuade; (e) gender, cultural and racial/ethnic differences in verbal and non-verbal communication; and (f) developing and delivering a multi-media workshop or presentation for small or large groups.

UGE3720 Philosophy of Science

3 credits

Introduction to the five branches of the philosophy of science: metaphysics (study of existence), epistemology (study of knowledge), ethics (study of action), politics (study of force) and esthetics (study of art). Includes theory and application in life as a member of society and as a health sciences practitioner.

UGE3730 Ethical Foundations

3 credits

Emphasis upon broad-based, ethical decision-making principles in contrast to applied, discipline-specific professional ethics with a focus on the origins of professional ethics in moral philosophy and religion. Also includes classical ethical dilemmas encountered in life.

UGE3740 Understanding and Using Research

3 credits

This course includes the foundations of statistics as well as quantitative and qualitative research methods. The overall emphases are upon (a) following your curiosity and the unknown of interest to formulate your question empirically; (b) accessing and acquiring research of interest and relevance; (c) critical thinking in evaluating the quality of the research; and (d) lifelong learning in the context of research.

PRE-PROFESSIONAL PROGRAM

Courses offered through Northwestern Health Sciences University's Pre-Professional Program are available to prospective chiropractic students who are interested in completing their undergraduate science prerequisites. Priority for enrolling in these courses is given to students who have already applied to Northwestern College of Chiropractic.

To assist chiropractic applicants in completing their science prerequisites, Northwestern offers a two-course sequence in General Chemistry; a two-course sequence in Organic Chemistry; and a two-course sequence in Fundamentals of Physics/Biomechanics at Inver Hills Community College in Inver Grove Heights, Minnesota. These courses are offered in an accelerated format which allows students to complete a full-year course sequence in only one trimester. In addition, Human Anatomy and Physiology 1 and 2 are offered at Northwestern

Health Sciences University in Bloomington, Minnesota. These two courses must be taken sequentially. They are not offered in an accelerated format.

For information on course dates, times and classrooms, contact the Office of Admissions at (952/800) 888-4777, ext. 409.

Registration for all courses is completed through Northwestern Health Sciences University. A copy of the Pre-Professional Official Registration Form is available online at <http://www.nwhealth.edu> (follow the links for Northwestern College of Chiropractic) or you may obtain a copy from the Office of Admissions at (952/800) 888-4777, ext. 409.

All courses are Northwestern courses and will appear on a Northwestern Health Sciences University transcript. Students interested in applying for financial aid, if eligible, should apply through Northwestern.

PRE-PROFESSIONAL COURSES OFFERED AT INVER HILLS COMMUNITY COLLEGE

These courses are offered in an accelerated format which allows students to complete a full-year course sequence in only one trimester (15 weeks):

- Both General Chemistry courses (CHEM2160 and CHEM2161) can be completed in one trimester. Both courses are offered fall, winter and summer trimesters.
- Both Organic Chemistry courses (CHEM2058 and CHEM2059) can be completed in one trimester. Both courses are offered during fall, winter and summer trimesters.
- Fundamentals of Physics (PHYS2040) and Biomechanics (PHYS2050) can be completed in one trimester. Both courses are offered during fall, winter and summer trimesters.

COURSE DESCRIPTIONS

CHEM2160 General Chemistry I

4 credits

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

CHEM2161 General Chemistry II

4 credits

Prerequisite: CHEM 2160 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.

CHEM2058 Organic Chemistry I

4 credits

Prerequisite: CHEM 2161 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 II

4 credits

Prerequisite: CHEM 2058 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.

PHYS2040 Fundamentals of Physics

4 credits

Prerequisite: One year of high school algebra or equivalent.

Students learn the fundamentals of physics with 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.

PHYS2050 Biomechanics

3 credits

Prerequisite: PHYS 2040 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.

PRE-PROFESSIONAL COURSES OFFERED AT NORTHWESTERN HEALTH SCIENCES UNIVERSITY

Northwestern offers Human Anatomy and Physiology I and 2 (PSBS1211 and PSBS1212) each trimester at the University's campus in Bloomington, Minnesota. These two courses must be taken sequentially. They are not offered in an accelerated format.

COURSE DESCRIPTIONS

PSBS1211 Human Anatomy and Physiology I

4.5 credits

This is the first course of a two-course sequence in systems-based normal and abnormal human anatomy and physiology. Students will learn the design and function of the systems of the human body, with emphasis on the skeletal, muscular, nervous and integumentary systems. The laboratory includes observation of prosected human cadavers.

PSBS1212 Human Anatomy and Physiology 2

2.5 credits

Prerequisite: SBS1211 Human Anatomy and Physiology I.

This is the second course of a two-course sequence in systems-based normal and abnormal human anatomy and physiology. Students will learn the design and function of the systems of the human body, with emphasis on the cardiovascular; endocrine; respiratory; digestive; urinary and reproductive systems; and the sensory organs. The laboratory includes observation of prosected human cadavers.

A SUPERB CLINICAL EXPERIENCE

A complete array of clinical opportunities is available for Northwestern chiropractic interns. Students participate in these experiences starting in the sixth trimester 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 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.

In the seventh trimester, interns continue to apply and review all elements of the patient care process as they work with faculty clinicians in University Health Services, caring for patients from the campus community.

Northwestern's Natural Care Centers and Community Based Internship

In the eighth and ninth trimesters, students intern under the supervision of a faculty clinician at the fee-for-service Natural Care Centers of the University or the Community Based Internship (C.B.I.) 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, The Natural Care Center at Woodwinds is located on a hospital campus and Highland Natural Care Center is situated in a well-established residential area. The Natural Care Centers feature a variety of patient services, including chiropractic, massage therapy, acupuncture, Oriental medicine, healing touch and naturopathy.

The Community Based Internship Program, a Northwestern innovation, is another opportunity available to students in the eighth and ninth trimesters. Students who serve their internship in the C.B.I. program are placed in the private practice of a doctor of chiropractic who participates with the University in clinical education. Approximately 150 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.

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

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.

Academic Honors

Students receiving a grade point average (G.P.A.) 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>G.P.A. Range</u>
Cum laude	3.50 – 3.69
Magna cum laude	3.70 – 3.89
Summa cum laude	3.90 – 4.00

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 last 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 (G.P.A.) of 2.0 or better;
4. Fulfilled all financial obligations to the University;
5. Recommended for graduation by the faculty.

Graduation Rate

More than 90 percent of Northwestern's chiropractic students graduate within five years of matriculation.

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 require-

ments for licensure in addition to a D.C. 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 Relations and Career Services Office or the Greenawalt Library.

NORTHWESTERN COLLEGE OF CHIROPRACTIC

Curriculum Overview

The doctor of chiropractic curriculum at Northwestern consists of five academic years (three and one-third calendar years). Each year consists of three 15-week trimesters (except Trimesters 8 and 9 which are 17 weeks). The base of the curricular studies is composed of courses in the foundational sciences. 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 biophysiological principles.

These adjusting skills are complemented by related therapeutics such as physiotherapy, 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 foundational 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 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 chiropractic curriculum is taught in the following pattern:

Trimesters 1 and 2 – courses in foundational sciences; introductory chiropractic principles and methods; and radiology.

Trimesters 3, 4, and 5 – completion of foundational sciences; advancement in chiropractic methods and sciences; and progress in clinical sciences, including diagnosis and radiology.

Trimesters 6 and 7 – completion of radiology sequence; completion of core curriculum chiropractic science courses, including physical therapy; continued advancement in clinical sciences; and University Health Services internship preparatory to service in the University's public clinics.

Trimesters 8, 9, and 10 – service in the University's clinics over a 12-month period; completion of clinical sciences and practice

management sequence preparatory to entrance into private or group practice; and elective opportunity to participate in a private practice as a chiropractic physician-preceptor's associate.

Curriculum Organization

The doctor of chiropractic curriculum is comprised of 84 course offerings, organized by 10 Curriculum Management Teams. The sequence provides a strong foundational sciences 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 (consisting of physical, neurological, orthopedic, radiological and laboratory procedures) and interpret findings in forming clinical decisions. Students learn that proper diagnosis is fundamental in determining appropriate treatment and in measuring the patient's response to chiropractic care.

Anatomy and Pathology (9 courses, 33.25 credits)

Course work in the anatomical and pathological sciences provides a solid 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.

Physiology and Biochemistry (7 courses, 24 credits)

These courses provide a firm foundation for students to understand the nature of the functioning of the human body in health and disease. Courses progress from biochemistry and physiology to clinical biochemistry, clinical nutrition and pharmacology.

Microbiology and Immunology (5 courses, 12.7 credits)

Courses include infection control, microbiology, immunology, clinical pathology and public health. These courses provide a solid scientific foundation for understanding the complex processes of immunity and pathogen-host interaction.

Chiropractic Principles and Philosophy (6 courses, 9 credits)

These courses set the philosophy, science and art of chiropractic health care apart from other methods of health care delivery. The principle tenets upon which the profession of chiropractic is founded are explored and discussed.

***Chiropractic Methods and Therapeutics
(13 courses, 27.25 credits)***

Course work and experiential learning sets the stage for the lifelong journey to becoming a master in the art of adjustment and manipulation. Students will take classes covering physiological therapeutics, exercise and rehabilitation, as well as three years of methods curricula that includes a final term of methods offerings that can be customized.

***Diagnostic and Clinical Sciences
(18 courses, 45.75 credits)***

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 are managed by two Curriculum Management Teams, functioning as a clinical specialties section (which includes courses on taking a patient history, performing a physical examination, and courses on the diagnosis and chiropractic role in the management of a variety of health problems), and a special populations section (which includes courses covering the unique aspects of diagnosis and treatment of pregnant patients; infants and children; women; and the elderly).

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

The diagnostic imaging sequence is designed to provide the student with the skills and knowledge to utilize diagnostic 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.

***Business Foundations
(9 courses, 10.5 credits)***

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 produce graduates cognizant of the aspects of business that allow for success as a primary care provider. The principles covered are applicable regardless of the business and professional entity or arrangement the graduate chooses. The objectives of this program are to prepare the graduate with the additional tools and outside clinical competency necessary to succeed in the business of health care delivery.

***Clinician Development
(3 courses, 8 credits)***

The courses and clinical experiences contained within this program comprise that body of knowledge, attitudes and behaviors necessary in the evolution of becoming a professional chiropractic clinician. A variety of learning interventions and opportunities are offered to ensure a broad exposure to clinical experiences that will allow the learner to discover the types of clinical settings which are personally most appealing and rewarding. Clinical practica such as outpatient experiential learning, interdisciplinary setting rotations and various field experiences are included.

***Clinical Education
(7 courses, 31 credits)***

The clinical phase of the curriculum consists of progressive and mentored patient contact preparing students for competent and successful chiropractic practice. Students develop their patient care skills through a variety of real-world experiences in the Natural Care Centers of Northwestern Health Sciences University, with chiropractic doctors working in private practice settings and in community service learning environments.

Course List

The required curriculum for the doctor of chiropractic degree is composed of a sequence of courses offered in 10 separate 15-week trimesters for a minimum total of 4,334.25 contact hours, exclusive of elective courses of study.

Trimester 1 – 15 weeks

Course Number	Title	(Hours per week)			Credits	Clock Hours
		Lecture	Lab	Clinic		
11010	Biochemistry I	4	2	–	5.00	90
23510	Business and Professional Foundations I	1	–	–	1.00	15
25510	CPR	.5	-	–	0.50	8
13010	Gross Anatomy I	3	5	–	5.50	120
15010	Histology I	3	1.5	–	3.75	67.5
22710	Infection Control	.2	–	–	0.20	3
33010	Methods I	–	2	–	1.00	30
31010	Principles and Philosophy I	1	–	–	1.00	15
20010	Skeletal Radiology I	1	1	–	1.50	30
34010	Spine and Pelvis	3	–	–	3.00	45
	Totals	16.7	11.5	–	22.45	423.5

Trimester 2 – 15 weeks

Course Number	Title	(Hours per week)			Credits	Clock Hours
		Lecture	Lab	Clinic		
23520	Business and Professional Foundations 2	1	–	–	1.00	15
14220	Embryology	2	–	–	2.00	30
13120	Gross Anatomy 2	4	3	–	5.50	105
15120	Histology 2	3	1	–	3.50	60
33120	Methods 2	1	2	–	2.00	45
12120	Neuroscience I: PNS	4	–	–	4.00	60
11120	Physiology I	4	1	–	4.50	75
31120	Principles and Philosophy 2	2	–	–	2.00	30
	Totals	21	7	–	24.50	420

Trimester 3 – 15 weeks

Course Number	Title	(Hours per week)			Credits	Clock Hours
		Lecture	Lab	Clinic		
11330	Biochemistry 2	2	–	–	2.00	30
23530	Business and Professional Foundations 3	.75	–	–	0.75	12
33230	Methods 3	1.5	3.5	–	3.25	75
36030	Neuromusculoskeletal System I	3	–	–	3.00	45
12230	Neuroscience 2: CNS	3	–	–	3.00	45
17030	Pathology I	3	–	–	3.00	45
21030	Physical Diagnosis	3	2	–	4.00	75
11230	Physiology 2	4	1	–	4.50	75
37030	Principles and Philosophy 3	2	–	–	2.00	30
32030	Principles of Evidence-Based Health Care	1	–	–	1.00	15
20130	Skeletal Radiology 2	2	1	–	2.50	45
	Totals	25.25	7.5	–	29.00	492

Trimester 4 – 15 weeks

Course Number	Title	(Hours per week)			Credits	Clock Hours
		Lecture	Lab	Clinic		
23540	Business and Professional Foundations 4	.75	–	–	0.75	12
16140	Immunology and Clinical Microbiology	3	1	–	3.50	60
33340	Methods 4	1.5	3.5	–	3.25	75
21140	Neurodiagnosis	2	1.5	–	3.00*	52.25
36140	Neuromusculoskeletal System 2	4	1	–	4.50	75
36141	Neuromusculoskeletal System 3	2	3	–	4.50**	75
17140	Pathology 2	3	–	–	3.00	45
22040	Principles and Philosophy 4	2	–	–	2.00	30
20240	Skeletal Radiology 3	2	1	–	2.50	45
	Totals	20.25	11	–	27.00	469.25

Trimester 5 – 15 weeks

Course Number	Title	(Hours per week)			Credits	Clock Hours
		Lecture	Lab	Clinic		
23550	Business and Professional Foundations 5	.75	–	–	0.75	12
21250	E.E.N.T.	2	1	–	2.50	45
36350	Clinical Nutrition I	4	–	–	4.00	60
24050	Clinical Pathology I	2	1.5	–	2.75	52.5
25150	Infectious Diseases	2	–	–	2.00	30
41050	Introduction to Clinical Chiropractic	1	–	–	1.00	15
34150	Methods 5	1	2	–	2.00	45
41040	Patient Interviewing	1	–	–	1.00	15
35151	Physiological Therapeutics I	1	2.5	–	2.25	52.5
25250	Public and Preventive Health	2	–	–	2.00	30
20350	Skeletal Radiology 4	2	1	–	2.50	45
	Totals	18.75	8	–	22.75	402

Trimester 6 – 15 weeks

Course Number	Title	(Hours per week)			Credits	Clock Hours
		Lecture	Lab	Clinic		
23565	Business and Professional Foundations 6	.75	–	–	0.75	12
23365	Cardiopulmonary System	3	2	–	5.00**	75
41060	Clinic Internship I	1	–	4	3.00	75
24160	Clinical Pathology 2	3.5	1.5	–	4.25	75
23562	Gastrointestinal/ Genitourinary Systems	3	1	–	4.50**	60
34260	Methods 6	1	2	–	2.00	45
33561	Physiological Therapeutics 2	–	3	–	1.50	45
24760	Principles and Philosophy 5	1	–	–	1.00	15
20460	Radiation Physics and Safety	2	1	–	2.50	45
20661	Radiology of the Chest and Abdomen	2	1	–	2.50	45
	Totals	17.25	11.5	4	27.00	492

Trimester 7 – 15 weeks

Course Number	Title	(Hours per week)			Credits	Clock Hours
		Lecture	Lab	Clinic		
23575	Business and Professional Foundations 7	.5	–	–	0.50	8
41170	Clinic Internship 2	1	–	4	3.00	75
36470	Clinical Nutrition 2	2	–	–	3.00**	30
23890	Dermatology	1	–	–	1.00	15
25570	Emergency Procedures	1.5	2	–	2.50	52.5
23670	Endocrinology	1.5	–	–	1.50	22.5
25380	Maternal and Infant Health	2	–	–	2.00	30
26170	Mental Health I	2	–	–	2.00	30
33670	Methods 7	–	3	–	1.50	45
25980	Pharmacology	2	–	–	2.00	30
35170	Physiological Therapeutics 3	1	1	–	1.50	30
20570	Radiographic Technology and Positioning	1	1	–	1.50	30
23570	Women's Health	2	.5	–	2.25	37.5
	Totals	17.5	7.5	4	24.25	435.5

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

Course Number	Title	(Hours per week)			Credits	Clock Hours
		Lecture	Lab	Clinic		
23576	Business and Professional Foundations 8	2	–	–	2.00	30
25490	Children's Health	2	–	–	2.00	30
41280	Clinic Internship 3	–	–	17-21	9.00	300
42280	Clinical Case Studies I	1	–	–	1.00	15
25690	Health and the Older Person	2	–	–	2.00	30
26280	Mental Health 2	2	–	–	3.00**	30
	Totals	9	–	17-21	19.00	435

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

Course Number	Title	(Hours per week)		Clinic	Credits	Clock Hours
		Lecture	Lab			
23577	Business and Professional Foundations 9	3	–	–	3.00	45
41390	Clinic Internship 4	–	–	17-21	9.00	300
42390	Clinical Case Studies 2	1	–	–	1.00	15
47190	Legal Aspects of Chiropractic Health Care	2	–	–	2.00	30
	Totals	6	–	17-21	15.00	390

Trimester 10 – 15 week clinical term

Course Number	Title	(Hours per week)		Clinic	Credits	Clock Hours
		Lecture	Lab			
41400	Clinic Internship 5	–	–	25-40	10.00	300-600
OR 41500	Clinic Internship 6***	–	–	25-40	10.00	300-600
	Totals	–	–	25-40	10.00	300-600
	Total Minimum				220.95	4,334.25

*0.25 credit awarded for directed independent study

**1 credit awarded for directed independent study

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

COURSE DESCRIPTIONS

11010 Biochemistry 1
5.00 credits (90 hours):
60 lecture hours;
30 laboratory hours

The functional chemistry of the human body, integrating topics in cellular physiology with biochemistry; buffers, proteins, enzymes, carbohydrates, lipids, nucleic acids and intermediary metabolism. Lab includes methods of separation and identification of biochemical constituents.

11330 Biochemistry 2
2.00 credits (30 hours):
30 lecture hours
Prerequisite: Biochemistry 1

A continuation of Biochemistry 1: glycogen, gluconeogenesis, fatty acid and amino acid metabolism, urea cycle, steroids, liver biotransformations, vitamins and trace elements.

23510 Business and Professional Foundations 1
1.00 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
1.00 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
0.75 credit (12 hours):
12 lecture hours

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

23540 Business and Professional Foundations 4
0.75 credit (12 hours):
12 lecture hours

This course will focus on giving students a specific, detailed, formatted approach to first and second-day 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
0.75 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
0.75 credit (12 hours):
12 lecture hours

This course will focus on reimbursement for services. ICPT 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
0.50 credit (8 hours):
8 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
2.00 credits (30 hours):
30 lecture hours

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
3.00 credits (45 hours):
45 lecture hours

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**
5.00 credits (75 hours):
45 lecture hours;
30 laboratory hours;
1 credit of directed independent study
Prerequisite: 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**
2.00 credits (30 hours):
30 lecture hours

Students develop an understanding of normal growth and development of the child. An emphasis is placed on lifestyles and behaviors that support health maintenance and prevent common disorders or diseases of childhood.

41060 **Clinic Internship I**
3.00 credits (75 hours):
15 lecture hours
60 clinic hours

The initial internship term begins with practical experiences accompanied by lecture and small group discussions, 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 and simulated patients, interns refine the skills necessary for progression to the next phase of their clinical experience and share their experiences in small group discussions.

41170 **Clinic Internship 2**
3.00 credits (75 hours):
15 lecture hours
60 clinic hours
Prerequisite: Clinic Internship I

In the second internship term, students continue to apply and review all elements of the patient care process as they work with faculty clinicians in University Health Services, caring for patients from the campus community. 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**
9.00 credits (300 hours):
300 clinic hours
Prerequisite: Clinic Internship 2

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 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**
9.00 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 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**
10.00 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**
10.00 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 working with both urban and rural areas across the United States and in many foreign countries.

42280 Clinical Case Studies I
1.00 credit (15 hours):
15 lecture hours

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
1.00 credit (15 hours):
15 lecture hours

Presentation and discussion of patient cases commonly seen in the outpatient clinic setting.

36350 Clinical Nutrition I
4.00 credits (60 hours):
60 lecture hours
Prerequisites:
Biochemistry I & 2,
Physiology I & 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
3.00 credits (30 hours):
45 lecture hours;
Prerequisite: Clinical Nutrition I

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 I
2.75 credits (52.5 hours):
30 lecture hours;
22.5 laboratory hours
Prerequisites:
Gross Anatomy I & 2, Histology,
Physiology, Microbiology, and
Biochemistry I & 2

Introduction to laboratory skills, including venipuncture, and discussion of urinalysis, hematology 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 I

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 discussed to enhance clinical learning.

23890 Dermatology
1.00 credit (15 hours):
15 lecture hours
Prerequisite: 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. Discussions as to how chiropractic doctors participate in the management of patients who have skin conditions.

21250 E.E.N.T.
2.50 credits (45 hours):
30 lecture hours;
15 laboratory hours
Prerequisite: 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 E.E.N.T. disorders.

14220 Embryology
2.00 credits (30 hours):
30 lecture hours
Co-requisite: 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
2.50 credits (52.5 hours):
22.5 lecture hours;
30 laboratory hours
Prerequisites:
Physical Diagnosis, Infection Control

Basic techniques of assessment and management of patients experiencing airway, breathing and circulatory emergencies. Customized for the chiropractic physician who may encounter situations with adults or pediatric patients in clinical or field environments. Students receive A.H.A. Health Care Provider C.P.R. certification and First Responder Certification from the State of Minnesota. Upon successful completion, students are eligible to challenge the National Registry First Responder exam.

23670 Endocrinology
1.50 credits (22.5 hours):
22.5 lecture hours
Prerequisite: 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.

23562 Gastrointestinal/Genitourinary Systems
4.50 credits (60 hours):
45 lecture hours;
15 laboratory hours; 1 credit of directed independent study
Prerequisites:
Physical Diagnosis, Clinical Pathology I
Co-requisite: 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 I
5.50 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
5.50 credits (105 hours):
60 lecture hours;
45 laboratory hours
Prerequisite: Gross Anatomy I
Co-requisites: 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
2.00 credits (30 hours):
30 lecture hours
Prerequisite: Physical Diagnosis

Diagnosis and care of elderly patients with emphasis on the most 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.

15010 Histology I
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
3.50 credits (60 hours):
45 lecture hours;
15 laboratory hours
Prerequisite: Histology I

The functional microanatomy of the organs of the circulatory, digestive, respiratory, urinary, reproductive, endocrine and immune systems.

16140 Immunology and Clinical Microbiology
3.50 credits (60 hours):
45 lecture hours;
15 laboratory hours
Prerequisite: Biochemistry I
Recommended: Pathology I, Histology 2

The theoretical and practical basis of clinical microbiology: structure, classification, genetics, control, cultivation and identification of typical species of bacteria, viruses, fungi, and parasites. The normal immune defenses and pathological interactions between microbes and human host are stressed.

22710 Infection Control

0.20 credit (3 hours):
3 lecture hours

Students will learn the principles of infection control, bloodborne pathogens and OSHA regulations and apply them to both classroom and clinical settings.

25150 Infectious Diseases

2.00 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

1.00 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.

47190 Legal Aspects of Chiropractic Health Care

2.00 credits (30 hours):
30 lecture hours

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 business, how to prepare a legal case report and how to obtain malpractice insurance.

25380 Maternal and Infant Health

2.00 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 I

2.00 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

3.00 credits (45 hours):
30 lecture hours;
1.00 credit of directed independent study
Prerequisite: Mental Health I

The student will develop his/her own unique theory of helping by looking at different styles of doctor-patient relationships, issues of professional boundaries and attributes of an effective helping relationship. Development of skill, knowledge and attitudes necessary for influencing patient recovery and maintaining the mental health of the patient and chiropractic clinician is discussed.

33010 Methods I: Analysis Skills I

1.00 credit (30 hours):
30 laboratory hours

The fundamental terminology and skills used by the chiropractor during patient assessment (P.A.R.T.S.) 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

2.00 credits (45 hours):
15 lecture hours;
30 laboratory hours
Prerequisite: Methods I

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 in the lumbar and pelvic regions; continued development of same 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.

34150 **Methods 5: Practicum 1**

2.00 credits (45 hours):
15 lecture hours;
30 laboratory hours
Prerequisite: Methods 4

Continued development of psychomotor skills introduced in previous methods courses, with emphasis on modifications necessary to fit specific doctor and/or patient needs. Management strategies of common axial and appendicular conditions are discussed and practiced.

34260 **Methods 6: Practicum 2**

2.00 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.

33670 **Methods 7: Selectives**

0.75 credits each (22.5 hours):
0 lecture hours;
45 laboratory hours total
Prerequisites: Completion of Methods 1 through 6

The capstone of the Methods sequence is a selection of mini-courses in various techniques. Students are required to complete two such mini-courses to satisfy their Methods 7 requirement. Selectives vary by term: offerings include Activator Methods; structure-based spinal and extremity techniques; flexion-distraction and passive motion techniques; advanced motion-assessment techniques; advanced soft-tissue techniques; upper cervical specific techniques; and adjustments/manipulation variants.

21140 **Neurodiagnosis**

3.00 credits (52.25 hours):
30 lecture hours;
22.5 laboratory hours; 0.25 credits of directed Independent study
Prerequisites: Neuroscience I & 2

Discussion of the presentation, diagnosis and treatment of common disorders and complaints of the peripheral and central nervous systems. Students practice diagnostic techniques and treatment procedures and discuss how doctors of chiropractic can participate in the management of patients who have nervous system disorders.

36030 **Neuromusculoskeletal System 1: Principles and Overview**

3.00 credits (45 hours):
45 lecture hours
Prerequisites: Spine and Pelvis, Skeletal Radiology I, Neuroscience I
Co-requisite: 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 N.M.S. disorders.

36140 **Neuromusculoskeletal System 2: Spinal Disorders**

4.50 credits (75 hours):
60 lecture hours;
15 laboratory hours
Prerequisites: NMS I, 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
4.50 credits (90 hours):
30 lecture hours;
45 laboratory hours; 1.0 credits of directed independent study
Prerequisites: NMS 1, Gross Anatomy I & 2; Physiology I & 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 I: Peripheral Nervous System
4.00 credits (60 hours):
60 lecture hours
Prerequisite: Gross Anatomy I
Co-requisite: Physiology I

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
3.00 credits (45 hours):
45 lecture hours
Prerequisites: Gross Anatomy I & 2

The anatomy and function of the brain and spinal cord.

17030 Pathology I
3.00 credits (45 hours):
45 lecture hours
Prerequisites: Histology I & 2, Biochemistry I

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
3.00 credits (45 hours):
45 lecture hours
Prerequisite: Pathology I

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

41040 Patient Interviewing
1.00 credit (15 hours):
15 hours lecture
Prerequisites: Professional Issues, Physical Diagnosis

Examines all areas of patient interviewing such as 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.

25980 Pharmacology
2.00 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.

21030 Physical Diagnosis
4.00 credits (75 hours):
45 lecture hours;
30 laboratory hours
Prerequisites: Gross Anatomy I & 2, Physiology I
Co-requisite: Physiology 2

Students learn and practice assessment, with emphasis on performing and interpreting comprehensive physical examination procedures of the non-neuromusculoskeletal systems in the adult patient.

35151 Physiological Therapeutics I: Modality Applications
2.25 credits (52.5 hours):
15 lecture hours;
37.5 laboratory hours

Theories and application of heat, cold, traction and electrical modalities 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
1.50 credits (45 hours):
0 lecture hours;
45 laboratory hours

The primary focus of this course is the rehabilitation of damaged soft tissue that occurs with injuries frequently encountered by chiropractic clinicians. Methods to decrease pain, increase range of motion, increase muscle strength and endurance, as well as increasing aerobic health, are discussed.

**35170 Physiological Therapeutics 3:
Exercise and Rehabilitation**
1.50 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 I
4.50 credits (75 hours):
60 lecture hours;
15 laboratory hours
Co-requisite: Neuroscience I
Recommended: Gross Anatomy 2,
Histology 2

Study of cell membrane physiology and electrophysiology. Survey of the physiology of neuronal functions. In-depth study of skeletal, smooth and cardiac muscle physiology. The electrocardiogram, blood groups, hemostasis and hemodynamics.

11230 Physiology 2
4.50 credits (75 hours):
60 lecture hours;
15 laboratory hours
Prerequisites: Physiology I or instructor consent, Biochemistry I

The function of vascular, digestive, respiratory, urogenital and endocrine systems.

**31010 Principles and Philosophy 1:
History and Fundamentals of
Chiropractic**
1.00 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**
2.00 credits (30 hours):
30 lecture hours
Prerequisite: Principles and Philosophy I

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**
2.00 credits (30 hours):
30 lecture hours

Discussion and critical appraisal of chiropractic technique systems. Emphasis is on the person who developed 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 is also discussed.

**22040 Principles and Philosophy 4:
Chiropractic Science and Practice**
2.00 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**
1.00 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.

**32030 Principles of Evidence-Based
Health Care**
1.00 credit (15 hours):
15 lecture hours

This course provides an introduction to clinical decision-making using the “best” available evidence. Students will learn to pose relevant questions; locate and search appropriate sources of information; and appraise their methodological quality. Accordingly, students will be introduced to commonly encountered research designs and statistical principles used to answer questions encountered on a clinical and professional level.

25250 Public and Preventive Health
2.00 credits (30 hours):
30 lecture hours

Introduction to major public health concepts and topics with delineation of the role and responsibilities of the chiropractic physician.

20460 Radiation Physics and Safety
2.50 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
1.50 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
2.50 credits (45 hours): 30 lecture hours;
15 laboratory hours
Co-requisites: Cardiopulmonary System,
Gastrointestinal/Genitourinary Systems

Differentiation of normal from abnormal radiographic anatomy of the chest and abdomen using plain film. Correlation of X-ray findings with patient history, exam and lab findings. Discussions of the uses of and indications for advanced imaging techniques such as intravenous pyelography, barium studies, ultrasonography, computerized tomography and magnetic resonance imaging.

20010 Skeletal Radiology I
1.50 credits (30 hours): 15 lecture hours;
15 laboratory hours
Co-requisites: Spine and Pelvis;
Gross Anatomy I

Identification of radiographic projections and normal radiographic anatomy and selected developmental variants of the spine, extremities, chest and abdomen.

20130 Skeletal Radiology 2
2.50 credits (45 hours): 30 lecture hours;
15 laboratory hours
Prerequisite: Skeletal Radiology I

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.

20240 Skeletal Radiology 3
2.50 credits (45 hours):
30 lecture hours;
15 laboratory hours
Prerequisites: Skeletal Radiology I & 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
2.50 credits (45 hours):
30 lecture hours;
15 laboratory hours
Prerequisites: Skeletal Radiology I,
2 & 3

Discussion of neoplastic, infectious and metabolic diseases and their associated radiographic findings. Skeletal dysplasias, hematologic and nutritional disorders will be covered. Emphasis will be on correlating anatomic-clinical-radiological findings, with appropriate discussion of physical exam, laboratory and diagnostic imaging findings. Indications for and routes of appropriate referral for follow-up will be discussed.

34010 Spine and Pelvis
3.00 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: Physical Diagnosis

Emphasis on lifestyles and behaviors which enhance and promote health in women. The unique aspects of caring for women are discussed. Introduction to breast and pelvic examination. Discussion of chiropractic and medical management of women's health problems.

ELECTIVES

56055 Emergency Procedures II: Emergency Medical Technician – Basic

2.50 credits (60 hours):

15 lecture hours;

45 laboratory hours

Prerequisites: Emergency Procedures,
current First Responder Certification,
current Health Care Provider CPR
Certification

Designed for the chiropractic physician who: 1) will practice in a remote setting, or 2) focus primarily on sports-related injuries, or 3) anticipates becoming affiliated with community E.M.S. (emergency medical services) providers. A continuation of Emergency Procedures I, this course further addresses the assessment and management of emergency patients, including medication administration and transportation of patients to medical facilities. Also provides students with training in advanced airway management and IV set-up. This course consists of lecture, skill practice and clinical experience at a local hospital. This course is approved by the Minnesota Emergency Medical Services Regulatory Board. Participants who successfully complete the course will be eligible to take the National Registry of E.M.T.'s practical and written examinations.



MINNESOTA COLLEGE
OF ACUPUNCTURE AND
ORIENTAL MEDICINE



"Being a student at a university not only allows you to experience other natural health care modalities, but also provides excellent informational, educational and networking opportunities."

"Northwestern has an incredible group of faculty, administrators and staff who really care about their students. They all want you to succeed and will help you every step along the way."

"Everyone I worked at Northwestern with was so helpful throughout my decision-making process. I was impressed with how well-organized everything was, from the financial aid and registrar's office to the clinical internship programs."

"The clinical internship allows me to apply my education and interact with real patients. The clinic faculty are very helpful and they give each student individual attention, as well as support my ability to start my own practice after graduation. I will be ready!"



"Northwestern is an educational leader in total body care, which incorporates the mind, body, and spirit connection. Students develop an in-depth understanding of the complexities of the systems of the body. Our limited enrollment provides students with the exceptional education needed to prepare them for successful careers in chiropractic."

"The Minnesota College of Acupuncture and Oriental Medicine provides me with the knowledge, confidence and skills that I need to become a successful practitioner. Northwestern has challenged my ways of thinking, allowing me to learn from respected and skilled, full-time faculty."

"The School of Massage Therapy has a challenging curriculum that prepares students for careers in a wide variety of settings. The program offers a well-rounded, science-based education with instructors of the highest quality."

Why the Minnesota College of Acupuncture and Oriental Medicine?

Master's Degrees And Nationally Trained Faculty

"The Minnesota College of Acupuncture and Oriental Medicine provides me with the knowledge, confidence and skills that I need to become a successful practitioner. Northwestern has challenged my ways of thinking, allowing me to learn from respected and skilled, full-time faculty."

– Kristianne Seelye, acupuncture and Oriental medicine student

STATEMENT OF PURPOSE

The purpose of the Minnesota College of Acupuncture and Oriental Medicine at Northwestern Health Sciences University is to offer professional, accredited master's degree programs in acupuncture and Oriental medicine, graduating practitioners who are committed to competent and compassionate patient care. In so doing, we support and promote the growth of acupuncture and Oriental medicine and its integration into the health care system of the United States.

PHILOSOPHY

At the Minnesota College of Acupuncture and Oriental Medicine (M.C.A.O.M.), we believe a good health care practitioner is distinguished by:

- A broad range of relevant knowledge and skills;
- Demonstrated ability to translate education into clinical practice;
- Sensitivity to the individual patient's needs;
- Appreciation of the patient as a whole person;
- A centered and caring style within professional boundaries;
- A well-developed sense of professional ethics; and
- Appreciation of skills available from other professions.

M.C.A.O.M.'s fundamental philosophy is based on a belief in the importance of integrating mind, body and spirit in the treatment of every patient.

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 multi-disciplinary university of health sciences;
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 can acquire the knowledge, skills and attributes necessary for the competent and responsible practice of acupuncture and Oriental medicine;
5. Provide a clinical internship with adequate patient numbers and individualized supervision, enabling students to gain experience in the practical application of their knowledge and skills, preparing them for independent practice;
6. Provide continuing education for our graduates and other practitioners in the community;
7. Bring acupuncture and Oriental medicine to the general population by way of public education and the offering of affordable services through the teaching clinic;
8. Respond to the needs of the community by developing new programs as needed, encouraging public service, and supporting and cooperating with other persons or institutions with similar goals and standards.

PROGRAMS OF STUDY

M.C.A.O.M. offers two programs leading to the Master of Acupuncture and Master of Oriental Medicine degrees.

The Master of Oriental Medicine program is a full-time program that may be completed in three calendar years (nine consecutive trimesters) and must be completed within eight years of matriculation.

The Master of Acupuncture program is a full-time program that may be completed in two and two-thirds calendar years (eight consecutive trimesters) and must be completed within six years of matriculation.

EDUCATIONAL OBJECTIVES

In addition to meeting the University Assessment Learning Outcomes, a graduate of M.C.A.O.M. will be able to:

1. Demonstrate a thorough knowledge of Oriental medical theory and apply that knowledge effectively in a clinical setting;
2. Demonstrate appropriate skills in diagnosis, treatment planning and treatment, including appropriate referral;
3. Approach the diagnostic and treatment planning process with appreciation for the patient as a whole person rather than as a collection of symptoms;
4. Demonstrate professional, ethical behavior;
5. Demonstrate sufficient knowledge of Western medicine and sufficient competency in Western medical screening to make appropriate referrals and be able to communicate and collaborate with Western medical practitioners;
6. Pass National Board examinations and be eligible for licensing and practice in Minnesota;
7. Design a professional plan for clinical practice following graduation;
8. Demonstrate competence, compassion and care in the service of patients.

ADMISSION INFORMATION

Admission to the College

Northwestern admits individuals qualified by previous education and experience to meet the school'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 (U.S. dollars). It is the responsibility of the applicant to read this catalog and comply with all provisions and instructions.

Entrance Requirements

Admission requirements for the Master of Acupuncture and Master of Oriental Medicine programs include satisfactory completion of at least two academic years (60 semester credits or 90 quarter credits) at the baccalaureate level in an institution accredited by an agency recognized by the U.S. Secretary of Education. This education must be appropriate preparation for graduate-level work.

The following credits must be part of the 60 semester credits required for entrance:

Subject	Description	Sem. Credits
Humanities/ Natural Sciences	History, Political Science, Anthropology, Religion, Philosophy, Sociology, Biology, Chemistry, Biochemistry and Physics	15
English/ Communication Skills	Composition, Literature and Speech	6
Psychology	General/Principles of/ Introduction to Psychology	3

Effective academic year 2008-2009, M.C.A.O.M. will require additional science courses such as general chemistry, physics, microbiology, and others, in order to satisfy the Accreditation Commission for Acupuncture and Oriental Medicine (A.C.A.O.M.) accreditation requirements. For specific details, please contact the Office of Admissions.

These courses must be passed with a grade of C or better. Applicants must have earned a cumulative grade point average (G.P.A.) of at least 2.0 on a 4.0 scale. Applicants should realize that this G.P.A. is a minimum. To ensure acceptance, a more competitive grade point is desirable. Courses in chemistry, biology, Asian Studies and Chinese language are strongly recommended.

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, 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:

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 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.

Persons who have been convicted of any felony or misdemeanor of a violent or sexual nature 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 reserves the right to conduct a criminal background check on all applicants.

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.

The Office of Admissions personnel are available to help prospective students plan their pre-acupuncture and Oriental medicine 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 last 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. An application processing fee of \$50 (U.S. dollars). This fee is non-refundable;
2. Official transcripts from all colleges attended; (NOTE: These transcripts must be sent directly to Northwestern from those colleges.)
3. 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;
4. A completed essay (see application form for instructions);
5. 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 attempts 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 (U.S. 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.

International Applicants

All classes are taught in English. An international applicant may verify competency in English in the following manner:

1. Applicants 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. We reserve the right to request proof of English proficiency of any applicant.
2. All other foreign applicants (including those 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 207 or higher. Results of the TOEFL® must be sent directly to Northwestern from the testing agency. TOEFL information can be obtained online at <http://www.toefl.org>, or from: TOEFL Services, Educational Testing Services, P.O. Box 6151, Princeton, NJ 08541-6151, U.S.A.

International applicants must provide evidence of having financial resources to complete a minimum of one year of education. An official bank statement indicating sufficient funds is required. International transcripts must be evaluated by an international transcript evaluation service, such as World Education Services, Inc. (P.O. Box 5087, Bowling Green Station, New York, NY 10274, U.S.A.), with official copies of the course-by-course evaluation being 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.

Transfer Application

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. Submit an official transcript from the acupuncture or Oriental medicine program(s) previously attended;
3. Submit two letters of recommendation from faculty members of the acupuncture or Oriental medicine program previously attended, as well as a letter from that college's registrar indicating the student applicant is leaving that college in good standing and would be allowed to continue studies at their present acupuncture or Oriental medicine program;
4. The applicant's academic record must further allow for the student to be admitted without probation or other restriction, as defined by Northwestern policies;
5. Transfer credit may be granted for courses completed with a grade of C or better from another acupuncture or Oriental medicine institution. Those courses must have content similar to corresponding M.C.A.O.M. courses. The M.C.A.O.M. dean or designee will determine that comparability;
6. All credits that the student wishes to transfer to the Northwestern program must be applied for and posted to the applicant's Northwestern records no later than one year from matriculation;

7. Excessive indebtedness as a result of financial aid borrowing will be a factor in the Admissions Committee's decisions regarding acceptance of a transfer student. The Student Records and Financial Services Office will set upper limits of previous indebtedness;

These policies are subject to updating and modification. Contact the Office of Admissions for current information.

Transfer Credit Policy

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 examination. Students have three options to complete graduation requirements without taking every required course: Transfer Credit for equivalent courses, Transfer Credit for life experience, and/or Waivers of Requirement.

Transfer Credit

For Equivalent Courses

A transfer student must complete at least three full-time trimesters of resident study in the Northwestern program prior to graduation. To be considered for transfer credits, courses must be equivalent to those offered at M.C.A.O.M. based on an evaluation of the student's official transcript by M.C.A.O.M.'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 baccalaureate level or better and passed within the last five years 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). Occasionally, a course may need to have been passed within a shorter time frame. If the institution is not accredited or the course not passed within the time frame allowed (see below for life experience exception), the student must pass a challenge exam given by M.C.A.O.M. to have the transfer credit granted. Accreditation must be from an agency recognized by the U.S. Department of Education.

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 last five years if life work or experience has enabled the student to

use the skills learned in that course within the last 10 years, e.g. nurse, chiropractor, doctor, physical therapist, etc.

Maximum Transfer Credit

Transfer credit is granted for a maximum of the number of hours that the M.C.A.O.M. equivalent course earns. For example, a 180-hour course in Anatomy and Physiology from another school will be worth 135 hours at M.C.A.O.M., if 135 hours is the length of the M.C.A.O.M. course.

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.

Non-Program Students

Space permitting, and subject to other conditions, persons who are not enrolled in a complete degree program are welcome to apply to take certain classes. Non-program students must meet the admissions requirements and have completed the prerequisites for the courses in which they are interested. Required as part of the application process is a plan of study, including purpose and rationale. Minnesota-licensed acupuncture practitioners are welcome to enroll in any course as continuing education.

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. In all didactic classes, a minimum attendance of 80 percent is required. Students are referred to the Clinic Handbook for Internship and Observation attendance policies.

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.

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 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. Other competency exams may be administered at various stages throughout clinic.

Academic Honors

Students receiving a grade point average (G.P.A.) 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>G.P.A. 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 (G.P.A.) 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 at least one 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 (G.P.A.) of 2.0 or better;
4. Fulfilled all financial obligations to the University;
5. Been recommended for graduation by the faculty.

Graduation Rate

Since 2001, more than 85 percent of Northwestern's Acupuncture and Oriental Medicine students graduate within five years of matriculation.

CERTIFICATION AND LICENSURE

Graduates of M.C.A.O.M. master's degree programs exceed the eligibility requirements for the comprehensive national certification programs offered by the National Commission for the Certification of Acupuncture and Oriental Medicine (N.C.C.A.O.M.). Graduates of the Master of Acupuncture program are eligible to take the acupuncture certification program exam modules which include Foundations of Oriental Medicine, Acupuncture, 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 four listed above plus Chinese herbology. Students agree to provide M.C.A.O.M. with copies of their N.C.C.A.O.M. 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 and in the state or province in which they intend to practice. In Minnesota, eligibility for acupuncture licensure is based upon active certification by the N.C.C.A.O.M. 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.

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 /Qi Gong;
- Nutrition;
- Western medical studies 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 past an introductory level.

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

The M.C.A.O.M. Clinical Experience

M.C.A.O.M. students begin clinical training in their second trimester with Clinical Observation/Assistantship. Clinical internship begins in the fifth trimester and takes place in the Edith Davis Teaching Clinic on the University campus or in the Natural Care Centers of Northwestern Health Sciences University. 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 M.C.A.O.M. clinical faculty members and are progressively given more responsibility as their competence increases. The exceptionally 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.

MINNESOTA COLLEGE OF ACUPUNCTURE AND ORIENTAL MEDICINE COURSE LIST**PROFESSIONAL MASTER'S DEGREE in ACUPUNCTURE****First Year****TRIMESTER 1**

<i>Course Number</i>	<i>Course Description</i>	<i>Didactic Credits</i>	<i>Lab Credits</i>	<i>Clinic Credits</i>	<i>Contact Hours</i>
AAC3214	TCM Pathology and Diagnosis I	5.00			75
AAC4025	Acupuncture Point Location I		2.00		60
AWM3011	Anatomy and Physiology I	4.00	0.50		75
AWM1500	Medical Terminology	1.00			15
ACH3010	Introduction to Chinese Language	1.00			15
ACH3030	Qi Gong I		0.50		15
TOTALS: Trimester 1, 1st year		11.00	3.00	0.00	255

TRIMESTER 2

<i>Course Number</i>	<i>Course Description</i>	<i>Didactic Credits</i>	<i>Lab Credits</i>	<i>Clinic Credits</i>	<i>Contact Hours</i>
AAC3215	TCM Pathology and Diagnosis 2	4.00			60
AAC4026	Acupuncture Point Location 2		2.50		75
AWM3012	Anatomy and Physiology 2	2.00	0.50		45
AHB3010	Introduction to Chinese Herbal Medicine	0.50			7.5
ARS6030	Critical Appraisal of the Literature	1.00			15
ARS4040	Ethics in Health Care	1.00			15
ACL3020	Clinical Observation			1.00	3
TOTALS: Trimester 2, 1st year		8.50	3.00	1.00	247.5

TRIMESTER 3

<i>Course Number</i>	<i>Course Description</i>	<i>Didactic Credits</i>	<i>Lab Credits</i>	<i>Clinic Credits</i>	<i>Contact Hours</i>
AAC4255	Needling Techniques I		1.60		48
AAC3216	Diagnostic Analysis in Chinese Medicine	1.00			15
AAC4230	Acupuncture Treatment Strategy	3.00			45
AAC4250	Accessory Techniques		1.50		45
AAC4257	Medical Asepsis and Risk Management for Acupuncturists		0.40		12
AWM4031	Pathophysiology I	2.00			30
AWM4034	Needling Anatomy I	1.00	0.50		30
ACL3020	Clinical Observation			1.00	30
TOTALS: Trimester 3, 1st year		7.00	4.00	1.00	255

Second Year**TRIMESTER 4**

<i>Course Number</i>	<i>Course Description</i>	<i>Didactic Credits</i>	<i>Lab Credits</i>	<i>Clinic Credits</i>	<i>Contact Hours</i>
AAC4030	Pre-Clinical Workshop	3.00			45
AAC4256	Needling Techniques 2	1.00	2.00		75
AWM4032	Pathophysiology 2	2.00			30
AWM4041	Western Medical Screening I	2.00	0.50		45
AWM0150	C.P.R.		0.13		4
AWM4035	Needling Anatomy 2	1.00	0.50		30
ARS5060	Interactive Skills	1.00			15
ACL3020	Clinical Observation			1.00	30
TOTALS: Trimester 4, 2nd year		10.00	3.13	1.00	274

TRIMESTER 5

<i>Course Number</i>	<i>Course Description</i>	<i>Didactic Credits</i>	<i>Lab Credits</i>	<i>Clinic Credits</i>	<i>Contact Hours</i>
AAC5151	Acupuncture Clinical Medicine I	3.00			45
AAC5060	Tui Na		1.00		30
AWM4042	Western Medical Screening 2	2.00	0.50		45
AWM5075	Western Clinical Medicine I	3.00			45
ACL3020	Clinical Observation			1.00	30
ACL5040	Clinical Internship			4.00	120
ACL5050	Clinic Seminar	1.00			15
TOTALS: Trimester 5, 2nd year		9.00	1.50	5.00	330

TRIMESTER 6

<i>Course Number</i>	<i>Course Description</i>	<i>Didactic Credits</i>	<i>Lab Credits</i>	<i>Clinic Credits</i>	<i>Contact Hours</i>
AAC5152	Acupuncture Clinical Medicine 2	3.00			45
AAC4245	Advanced Needling Techniques		1.00		30
AWM5077	Western Clinical Medicine 3	3.00			45
AWM5081	Pharmacology for Chinese Medical Practitioners	3.00			45
ACL3020	Clinical Observation			1.00	30
ACL5040	Clinical Internship			4.00	120
ACL5050	Clinic Seminar	1.00			15
TOTALS: Trimester 6, 2nd year		10.00	1.00	5.00	330

Third Year**TRIMESTER 7**

<i>Course Number</i>	<i>Course Description</i>	<i>Didactic Credits</i>	<i>Lab Credits</i>	<i>Clinic Credits</i>	<i>Contact Hours</i>
AAC5153	Acupuncture Clinical Medicine 3	3.00			45
AAC5291	Musculoskeletal Treatment		1.50		45
AHB5130	Traditional Oriental Food Therapy	2.00			30
AWM5076	Western Clinical Medicine 2	3.00			45
ARS5091	Practice Management I	2.00			30
ACL5040	Clinical Internship			4.00	120
ACL5050	Clinic Seminar	1.00			15
TOTALS: Trimester 7, 3rd year		11.00	1.50	4.00	330

TRIMESTER 8

<i>Course Number</i>	<i>Course Description</i>	<i>Didactic Credits</i>	<i>Lab Credits</i>	<i>Clinic Credits</i>	<i>Contact Hours</i>
AAC6110	Acupuncture Review and Synthesis	2.00			30
AAC6220	Nei Jing	2.00			30
AWM5078	Western Clinical Medicine 4	2.00			30
AWM5060	Nutrition	3.00			45
ARS5092	Practice Management 2	2.00			30
ACL6060	Clinical Internship (Acupuncture Only)			1.50	45
ACL5040	Clinical Internship			4.00	120
ACL5050	Clinic Seminar	1.00			15
TOTALS: Trimester 8, 3rd year		12.00		5.50	345
TOTALS FOR ENTIRE PROGRAM		78.50	17.13	22.50	2366.5
Total Credits		118.13			
Total Hours		2366.50			

PROFESSIONAL MASTER'S DEGREE in ORIENTAL MEDICINE

First Year

TRIMESTER 1

<i>Course Number</i>	<i>Course Description</i>	<i>Didactic Credits</i>	<i>Lab Credits</i>	<i>Clinic Credits</i>	<i>Contact Hours</i>
AAC3214	TCM Pathology and Diagnosis I	5.00			75
AAC4025	Acupuncture Point Location I		2.00		60
AWM3011	Anatomy and Physiology I	4.00	0.50		75
ACH3010	Introduction to Chinese Language	1.00			15
ACH3030	Qi Gong I		0.50		15
AWM1500	Medical Terminology	1.00			15
TOTALS: Trimester 1, 1st year		11.00	3.00	0.00	255

TRIMESTER 2

<i>Course Number</i>	<i>Course Description</i>	<i>Didactic Credits</i>	<i>Lab Credits</i>	<i>Clinic Credits</i>	<i>Contact Hours</i>
AAC3215	TCM Pathology and Diagnosis 2	4.00			60
AAC4026	Acupuncture Point Location 2		2.50		75
AHB3010	Introduction to Chinese Herbal Medicine	0.50			7.5
ARS6030	Critical Appraisal of the Literature	1.00			15
AWM3012	Anatomy and Physiology 2	2.00	0.50		45
ARS4040	Ethics in Health Care	1.00			15
ACL3020	Clinical Observation			1.00	30
TOTALS: Trimester 2, 1st year		8.50	3.00	1.00	247.5

TRIMESTER 3

<i>Course Number</i>	<i>Course Description</i>	<i>Didactic Credits</i>	<i>Lab Credits</i>	<i>Clinic Credits</i>	<i>Contact Hours</i>
AAC4255	Needling Techniques I		1.6		48
AAC3216	Diagnostic Analysis in Chinese Medicine	1.00			15
AAC4230	Acupuncture Treatment Strategy	3.00			45
AAC4250	Accessory Techniques		1.50		45
AAC4257	Medical Asepsis and Risk Management for Acupuncturists		0.40		12
AWM4031	Pathophysiology I	2.00			30
AWM4034	Needling Anatomy I	1.00	0.50		30
AHB4021	Materia Medica I	4.00			60
ACL3020	Clinical Observation			1.00	30
TOTALS: Trimester 3, 1st year		11.00	4.00	1.00	315

Second Year**TRIMESTER 4**

<i>Course Number</i>	<i>Course Description</i>	<i>Didactic Credits</i>	<i>Lab Credits</i>	<i>Clinic Credits</i>	<i>Contact Hours</i>
AAC4030	Pre-Clinical Workshop	3.00			45
AAC4256	Needling Techniques 2	1.00	2.00		75
AWM4032	Pathophysiology 2	2.00			30
AWM4041	Western Medical Screening I	2.00	0.50		45
AWM0150	C.P.R.		0.13		4
AWM4035	Needling Anatomy 2	1.00	0.50		30
ARS5060	Interactive Skills	1.00			15
AHB4022	Materia Medica 2	5.00			75
ACL3020	Clinical Observation			1.00	30
TOTALS: Trimester 4, 2nd year		15.00	3.13	1.00	349

TRIMESTER 5

<i>Course Number</i>	<i>Course Description</i>	<i>Didactic Credits</i>	<i>Lab Credits</i>	<i>Clinic Credits</i>	<i>Contact Hours</i>
AAC5151	Acupuncture Clinical Medicine I	3.00			45
AAC5060	Tui Na		1.00		30
AWM4042	Western Medical Screening 2	2.00	0.50		45
AWM5075	Western Clinical Medicine I	3.00			45
AHB5035	Herbal Formulas and Strategies I	4.00			60
ACL3020	Clinical Observation			1.00	30
ACL5040	Clinical Internship			4.00	120
ACL5050	Clinic Seminar	1.00			15
TOTALS: Trimester 5, 2nd year		13.00	1.50	5.00	390

TRIMESTER 6

<i>Course Number</i>	<i>Course Description</i>	<i>Didactic Credits</i>	<i>Lab Credits</i>	<i>Clinic Credits</i>	<i>Contact Hours</i>
AAC5152	Acupuncture Clinical Medicine 2	3.00			45
AAC4245	Advanced Needling Techniques		1.00		30
AWM5077	Western Clinical Medicine 3	3.00			45
AWM5081	Pharmacology for Chinese Medical Practitioners	3.00			45
AHB5036	Herbal Formulas and Strategies 2	5.00			75
ACL3020	Clinical Observation			1.00	30
ACL5040	Clinical Internship			4.00	120
ACL5050	Clinic Seminar	1.00			15
TOTALS: Trimester 6, 2nd year		15.00	1.00	5.00	405

Third Year**TRIMESTER 7**

<i>Course Number</i>	<i>Course Description</i>	<i>Didactic Credits</i>	<i>Lab Credits</i>	<i>Clinic Credits</i>	<i>Contact Hours</i>
AAC5153	Acupuncture Clinical Medicine 3	3.00			45
AAC5291	Musculoskeletal Treatment		1.50		45
AWM5076	Western Clinical Medicine 2	3.00			45
AHB5130	Traditional Oriental Food Therapy	2.00			30
ARS5091	Practice Management I	2.00			30
AHB5091	Herbal Clinical Medicine I	3.00			45
ACL5040	Clinical Internship			4.00	120
ACL5050	Clinic Seminar	1.00			15
TOTALS: Trimester 7, 3rd year		14.00	1.50	4.00	375

TRIMESTER 8

<i>Course Number</i>	<i>Course Description</i>	<i>Didactic Credits</i>	<i>Lab Credits</i>	<i>Clinic Credits</i>	<i>Contact Hours</i>
AAC6110	Acupuncture Review and Synthesis	2.00			30
AAC6220	Nei Jing	2.00			30
AWM5078	Western Clinical Medicine 4	2.00			30
AWM5060	Nutrition	3.00			45
ARS5092	Practice Management 2	2.00			30
AHB5092	Herbal Clinical Medicine 2	3.00			45
ACL6081	Clinical Internship (Oriental Medicine only)			2.00	60
ACL5040	Clinical Internship			4.00	120
ACL5050	Clinic Seminar	1.00			15
TOTALS: Trimester 8, 3rd year		15.00	0.00	6.00	405

TRIMESTER 9

<i>Course Number</i>	<i>Course Description</i>	<i>Didactic Credits</i>	<i>Lab Credits</i>	<i>Clinic Credits</i>	<i>Contact Hours</i>
AHB6040	Herbal Review and Synthesis	4.00			60
AHB6050	Herbal Pharmacy Management	1.00			15
AHB6060	Herbal Classics	3.00			45
ACL6081	Clinical Internship (Oriental Medicine Only)			2.00	60
ACL5040	Clinical Internship			4.00	120
ACL5050	Clinic Seminar	1.00			15
TOTALS: Trimester 9, 3rd year		9.00	0.00	6.00	315
TOTALS FOR ENTIRE PROGRAM		111.50	17.13	29.00	3056.5
Total Credits		157.63			
Total Hours		3056.50			

COURSE DESCRIPTIONS

AAC4250 Accessory Techniques

1.50 credits (45 hours):

45 laboratory hours

Prerequisites:

Acupuncture Point Location 1 & 2,

Anatomy and Physiology 1 & 2

Co-requisite: 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

3.00 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

3.00 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 a three-course sequence in Acupuncture Clinical Medicine.

AAC5153 Acupuncture Clinical Medicine 3

3.00 credits (45 hours): 45 lecture hours

Prerequisites: Acupuncture Point Location 1 & 2, Acupuncture Treatment Strategy, Anatomy and Physiology 1 & 2, Diagnostic Analysis, Needling Techniques 1 & 2, TCM Pathology and Diagnosis 1 & 2

The final class of a three-course sequence in Acupuncture Clinical Medicine.

AAC4025 Acupuncture Point Location 1

2.00 credits (60 hours):

60 laboratory hours

Co-requisite: 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

2.50 credits (75 hours):

75 laboratory hours

Prerequisites: Acupuncture Point Location 1, Anatomy and Physiology 1

Co-requisite: 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

2.00 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, Ethics in Health Care, Interactive Skills, Needling Anatomy 1 & 2, Needling Techniques 1 & 2, Musculoskeletal Treatment, Pathophysiology 1 & 2, Pre-Clinical Workshop, Tui Na, TCM Pathology and Diagnosis 1 & 2, Western Clinical Medicine 1, 2 & 3, 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

3.00 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

1.00 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 1 & 2, 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 I

4.50 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 and integumentary systems. 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

2.50 credits (45 hours): 30 lecture hours;
15 laboratory hours
Prerequisite: Anatomy and Physiology I

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 and immune systems, and the sensory organs. The laboratory experience may include observation of human cadavers.

AWM0150 CPR (Cardiopulmonary Resuscitation)

0.13 credit (4 hours): 4 laboratory hours

Students are required to obtain provider-level CPR certification unless they have specific physical impediments. Certification may be accomplished by successful completion of this course. If C.P.R. certification is obtained elsewhere, the student must supply evidence of certification, and transfer credit will be granted. The course is usually held on a Saturday.

ACL5040 Clinical Internship

4.00 credits (120 hours):
120 clinical hours (Repeatable)
Prerequisites: Accessory Techniques, Acupuncture Point Location 1 & 2, Anatomy and Physiology 1 & 2, Ethics in Health Care, Diagnostic Analysis in Chinese Medicine, Interactive Skills, Needling Anatomy 1 & 2, Needling Techniques 1 & 2, Western Medical Screening 1, Pathophysiology 1 & 2, Pre-Clinical Workshop, TCM Pathology and Diagnosis 1 & 2, passing scores on all pre-clinical entrance examinations
Co-requisites: Western Medical Screening 2 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 the teaching clinic.

ACL 6060 Clinical Internship (Acupuncture Only)

1.50 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.

ACL6081 Clinical Internship (Oriental Medicine Only)

2.00 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.

ACL3020 Clinical Observation

1.00 credit (30 hours):
30 clinical hours (Repeatable)
Prerequisites: Anatomy and Physiology I, TCM Pathology and Diagnosis I

In the beginning of their clinical education, students are required to observe supervisors, senior interns and graduates caring for patients in the school's teaching clinics. Once they have become familiar with the operations of the clinics, observers are asked to provide assistance with general clinical tasks. Observation in later trimesters may be completed at pre-approved outside clinical locations.

ACL5050 Clinic Seminar

1.00 credit (15 hours): 15 lecture hours
(Repeatable)
Co-requisite: Clinical Internship

Students participate in a variety of special topic seminars and/or weekly group case-study sessions.

ARS6030 Critical Appraisal of the Literature

1.00 credit (15 hours): 15 lecture hours

Students learn to manage and utilize information generated from healthcare research, including peer-reviewed journal articles, professional and consumer-oriented media, and Internet content, through structured appraisal techniques. Students learn to identify problems in methodology that impact the credibility and utility of information, and learn to assess the reliability of information sources.

AAC3216 Diagnostic Analysis in Chinese Medicine

1.00 credit (15 hours): 15 lecture hours
Prerequisites: TCM Pathology and Diagnosis I & 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.

ARS4040 Ethics in Health Care

1.00 credit (15 hours): 15 lecture hours

Students learn basic principles of ethics and jurisprudence as a foundation for problem-solving in health-care practice.

AHB6060 Herbal Classics

3.00 credits (45 hours): 45 lecture hours
Prerequisites: Herbal Formulas and Strategies I & 2, Introduction to Chinese Herbal Medicine, Materia Medica I & 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 I

3.00 credits (45 hours): 45 lecture hours
Prerequisites: Introduction to Chinese Herbal Medicine, Materia Medica I & 2, Herbal Formulas and Strategies I & 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

3.00 credits (45 hours): 45 lecture hours
Prerequisites: Introduction to Chinese Herbal Medicine, Materia Medica I & 2, Herbal Formulas and Strategies I & 2, Herbal Clinical Medicine I

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.

AHB5035 Herbal Formulas and Strategies I

4.00 credits (60 hours): 60 lecture hours
Prerequisites: Introduction to Chinese Herbal Medicine, Materia Medica I & 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

5.00 credits (75 hours): 75 lecture hours
Prerequisites: Introduction to Chinese Herbal Medicine, Materia Medica I, Herbal Formulas and Strategies I

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

AHB6050 Herbal Pharmacy Management

1.00 credit (15 hours): 15 lecture hours
Prerequisites: Introduction to Chinese Herbal Medicine, Materia Medica I & 2, Herbal Formulas and Strategies I & 2, Herbal Clinical Medicine I & 2

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

AHB6040 Herbal Review and Synthesis
4.00 credits (60 hours): 60 lecture hours
Prerequisites: Introduction to Chinese Herbal Medicine, 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
1.00 credit (15 hours): 15 lecture hours
Prerequisite: Ethics in Health Care

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

AHB3010 Introduction to Chinese Herbal Medicine
0.50 credit (7.5 hours): 7.5 lecture hours

Students become familiar with the unique clinical and theoretical features that characterize the field of Chinese herbal medicine. Emphasis will be placed on botanical and pharmacological taxonomy and nomenclature, with a brief introduction to traditional Chinese analysis of herb function.

ACH3010 Introduction to Chinese Language
1.00 credit (15 hours): 15 lecture hours

Students learn to use the dictionary, to count, to speak simple phrases, to recognize characters for numbers and to recognize basic Chinese medical vocabulary. The tones and pronunciation of spoken Chinese and the formation of written characters are introduced.

AHB4021 Materia Medica 1
4.00 credits (60 hours): 60 lecture hours
Prerequisite: Introduction to Chinese Herbal Medicine

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
5.00 credits (75 hours): 75 lecture hours
Prerequisites: Introduction to Chinese Herbal Medicine, 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
0.40 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.

AWMI500 Medical Terminology
1.00 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
1.50 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 1 & 2, 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.

AWM4034 Needling Anatomy 1
1.50 credits (30 hours): 15 lecture hours; 15 laboratory hours
Prerequisites: Anatomy and Physiology 1 & 2

This class is the first course in a two-course sequence studying 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. Observation of human cadavers is required during the laboratory experience.

AWM4035 Needling Anatomy 2

1.50 credits (30 hours): 15 lecture hours;
15 laboratory hours
Prerequisites: Anatomy and Physiology I
& 2, Needling Anatomy I

This class is the second in a two-course sequence studying the cross-sectional anatomy of the body as it relates to specific acupuncture points. Special attention is paid to those points whose underlying anatomy may be at specific risk during the needling process. Observation of human cadavers is required during the laboratory experience.

AAC4255 Needling Techniques I

1.60 credits (48 hours): 48 lab hours;
Prerequisites: Acupuncture Point
Location I & 2, Anatomy and Physiology
I & 2, TCM Pathology and Diagnosis I
& 2, Medical Asepsis and Risk
Management for Acupuncturists
Co-requisite: Needling Anatomy I

This class is the first course of a two-course laboratory sequence training students in the needling of major points of the body. Students practice needle insertion on the most common treatment points. Emphasis is placed on refinement of point location skills and development of special insertion and manipulation techniques.

AAC4256 Needling Techniques 2

3.00 credits (75 hours): 15 lecture hours;
60 laboratory hours
Prerequisites: Acupuncture Point
Location I & 2, Anatomy and Physiology
I & 2, Medical Asepsis and Risk
Management for Acupuncturists,
Needling Anatomy I, Needling
Techniques I, TCM Pathology and
Diagnosis I & 2
Co-requisite: Needling Anatomy 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

2.00 credits (30 hours): 30 lecture hours
Prerequisites: Acupuncture Point
Location I & 2, Acupuncture Treatment
Strategy, Diagnostic Analysis in Chinese
Medicine, TCM Pathology and Diagnosis
I & 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

3.00 credits (45 hours): 45 lecture hours

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 I

2.00 credits (30 hours): 30 lecture hours
Prerequisite: Anatomy and Physiology
I & 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

2.00 credits (30 hours): 30 lecture hours
Prerequisites: Anatomy and Physiology
I & 2, Pathophysiology I

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.

AWM5080 Pharmacology for Chinese Medical Practitioners

3.00 credits (45 hours): 45 lecture hours

Students learn the rationale for pharmacological intervention for selected drugs, the use of drug information sources, proper interaction with the patient and their provider, recognition of adverse drug reactions and drug abuse, and the basic principles of pharmacology and toxicology in humans. Guest lecturers will explore the clinical issues that arise when herbal medicine is co-administered with Western medications and nutritional supplements, with a special focus on the risk of harmful interactions. In addition, the course will explore the phytochemistry of select substances and how this may impact dose delivery and product quality.

ARS5091 Practice Management I

2.00 credits (30 hours): 30 lecture hours

The first of a two-course sequence, this class provides students with the necessary knowledge and skills to open and manage a practice. Practice Management I focuses on the process of managing the complete customer (patient) cycle beginning with building a clear presence in the marketplace, based on the practitioner's interest and skills, on through the cycle of service to patients. Includes front-office functions.

ARS5092 Practice Management 2

2.00 credits (30 hours): 30 lecture hours
Prerequisite: Practice Management I

The second of a two-course sequence, this class provides students with the necessary knowledge and skills to open and manage a practice. This course may include a variety of lecturers, each of whom has experience in particular aspects of practice management. Practice Management 2 focuses on planning and completing the tasks and information needed to go through the start-up process. Students will complete a business plan for their proposed practice.

AAC4030 Pre-Clinical Workshop

1.50 credits (45 hours):
45 laboratory hours
Prerequisites: Accessory Techniques,
Acupuncture Point Location I & 2,
Acupuncture Treatment Strategy,
Anatomy and Physiology I & 2,
Diagnostic Analysis in Chinese Medicine,
Needling Anatomy I, Pathophysiology I,
TCM Pathology and Diagnosis I & 2
Co-requisites: Needling Anatomy 2,
Pathophysiology 2, Western Medical
Screening I

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.

ACH3030 Qi Gong I

0.50 credit (15 hours):
15 laboratory hours

This course presents the classical practice of Qi Gong 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 I

5.00 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

4.00 credits (60 hours): 60 lecture hours
Prerequisite: TCM Pathology and
Diagnosis I

This course is a continuation of TCM Pathology and Diagnosis I. Students will complete the study of organ patterns begun in TCM Pathology and Diagnosis I 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.

AHB5130 Traditional Oriental Food Therapy

2.00 credits (30 hours): 30 lecture hours
Prerequisites: TCM Pathology and
Diagnosis I & 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

1.00 credit (30 hours):
30 laboratory hours
Prerequisites: Acupuncture Point
Location I & 2, Acupuncture Treatment
Strategy, Anatomy and Physiology I & 2,
TCM Pathology and Diagnosis I & 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.

AWM5071 Western Clinical Medicine 1

3.00 credits (45 hours): 45 lecture hours
Prerequisites: Anatomy and Physiology I & 2, Pathophysiology I & 2, Western Medical Screening I & 2

This class is the first course in a four-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 orthopedics, cardiology and pulmonology.

AWM5072 Western Clinical Medicine 2

3.00 credits (45 hours): 45 lecture hours
Prerequisites: Anatomy and Physiology I & 2, Pathophysiology I & 2, Western Medical Screening I & 2

This class is the second course in a four-course sequence in the study of major health conditions and their pathogenic mechanisms as defined by Western biomedicine. Topics covered in this course include genitourinary disorders in men and women, obstetrics and pediatrics.

AWM5073 Western Clinical Medicine 3

3.00 credits (45 hours): 45 lecture hours
Prerequisites: Anatomy and Physiology I & 2, Pathophysiology I & 2, Western Medical Screening I & 2

This class is the third course in a four-course sequence in the study of major health conditions and their pathogenic mechanisms as defined by Western biomedicine. Topics covered in this course include gastrointestinal disorders and endocrinology.

AWM5074 Western Clinical Medicine 4

2.00 credits (30 hours): 30 lecture hours
Prerequisites: Anatomy and Physiology I & 2, Pathophysiology I & 2, Western Medical Screening I & 2

This class is the final course in a four-course sequence in the study of major health conditions and their pathogenic mechanisms as defined by Western biomedicine. Topics in this course include stroke, headache, upper motor neuron disorders, epilepsy and seizure disorders, and dementia.

AWM4041 Western Medical Screening 1

2.50 credits (45 hours): 30 lecture hours;
15 laboratory hours
Prerequisites: Anatomy and Physiology I & 2, Pathophysiology I
Co-requisite: Pathophysiology 2

This class is the first course in a two-course sequence concerning 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.

AWM4042 Western Medical Screening 2

2.50 credits (45 hours): 30 lecture hours;
15 laboratory hours
Prerequisites: Anatomy and Physiology I & 2, Pathophysiology I & 2, Western Medical Screening I

This class is the second course in a two-course sequence concerning Western medical techniques for physical examination, health screening and care management.



SCHOOL OF
MASSAGE THERAPY

"Being a student at a university not only allows you to experience other natural health care modalities, but also provides excellent informational, educational and networking opportunities."

"Northwestern has an incredible group of faculty, administrators and staff who really care about their students. They all want you to succeed and will help you every step along the way."

"Everyone I worked at Northwestern with was so helpful throughout my decision-making process. I was impressed with how well-organized everything was, from the financial aid and registrar's office to the clinical internship programs."



"The clinical internship allows me to apply my education and interact with real patients. The clinic faculty are helpful and they give each student individual attention, as well as support my ability to start my own practice after graduation. I will be ready!"

"Northwestern is an educational leader in total body care, which incorporates the mind, body, and spirit connection. Students develop an in-depth understanding of the complexities of the systems of the body. Our limited enrollment provides students with the exceptional education needed to prepare them for successful careers in chiropractic."

"The Minnesota College of Acupuncture and Oriental Medicine provides me with the knowledge, confidence and skills that I need to become a successful practitioner. Northwestern has challenged my ways of thinking, allowing me to learn from respected and skilled, full-time faculty."

"The School of Massage Therapy has a challenging curriculum that prepares students for careers in a wide variety of settings. The program offers a well-rounded, science-based education with instructors of the highest quality."

Why The School of Massage Therapy?

Comprehensive Science-Based Training

“The School of Massage Therapy has a challenging curriculum that prepares students for careers in a wide variety of settings. The program offers a well-rounded, science-based education with instructors of the highest quality.”

– Darlene Benham, massage therapy student

MISSION STATEMENT

The mission of the School of Massage Therapy is to provide quality education and clinical development in the field of massage therapy.

EDUCATIONAL OBJECTIVES

Therapists who successfully complete the 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.

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 deep tissue work or 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. Our Professional Studies course sequence 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 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 School seeks to admit no more than 26 students in each entering class. The teacher:student ratio will typically not exceed 1:26 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. New students are admitted at the

beginning of each trimester of the academic year: September, January and April/May. 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 (U.S. dollars) and a criminal background check fee of \$20 (U.S. dollars). It is the responsibility of the applicant to read this catalog and comply with all provisions and instructions.

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

Entrance Requirements

Applicants must meet the following requirements:

1. All students must be at least 18 years of age at the time of admission;
2. Students must have earned a high school diploma, its foreign equivalent or a General Equivalency Diploma. Successful completion of at least 36 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.
3. Applicants must have achieved a cumulative grade point average (G.P.A.) of 2.0 or better in prerequisite coursework.
4. All students must pass a criminal background check;
5. 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 one hour 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.

Persons who have been convicted of any felony or misdemeanor of a violent or sexual nature 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 reserves the right to conduct a criminal background check on all applicants.

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-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 last 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 is to submit a fully completed application for admission. You may obtain an application online at <http://www.nwhealth.edu> or from the Office of Admissions. The application for admission must include:

1. A properly completed application for admission. Please type or print neatly;
2. An application processing fee of \$50 (U.S. dollars). This fee is non-refundable and must be submitted with the application for admission;
3. Official transcripts from all colleges attended sent directly to Northwestern from those colleges. High school transcripts or G.E.D. certificate are required only if the student has less than one year (36 semester credits) or does not have prior college work;

(Note: Please 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, in general, seeks to matriculate students who best suit the philosophies and goals of the University. Northwestern attempts to select students who have strong academic records and who demonstrate the motivational and personal characteristics suitable for a career in massage therapy. 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 (U.S. 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 Credit 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 U.S. 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 18 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.

International Applicants

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. A student may verify competency in English as follows:

1. Students from non-U.S. 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;
2. All other foreign applicants (including those 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 207 or higher. Results of the TOEFL® must be sent directly to Northwestern from the testing agency. TOEFL information can be obtained online at <http://www.toefl.org> or from:

TOEFL Services,
Educational Testing Services, P.O. Box 6151,
Princeton, NJ 08541-6151, U.S.A.

Students must provide evidence of having financial resources to complete a minimum of one year of education. An official bank statement indicating sufficient funds is required.

International transcripts must be evaluated by an international transcript evaluation service, such as World Education Services, Inc. (P.O. Box 5087, Bowling Green Station, New York, NY 10274, U.S.A.) with official copies of the course-by-course evaluation being 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.

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 (U.S. 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.

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, once, 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:

- Instructors assign letter grades as appropriate according to the student's achievement level;
- Students enrolled in the School of Massage Therapy must maintain a 2.0 (C) cumulative grade point average (G.P.A.) 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;
- Pluses and minuses are not part of the official grading system and are not figured into a student's grade point average;
- 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;
- 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.

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 consequences for violation of these policies, on the course syllabus.

GRADUATION

Graduation Requirements

The Certificate in Massage Therapy is granted to those candidates who have:

- Completed the required course of study leading to the certificate of massage therapy within 150 percent of the normal completion time. This would be five trimesters for the day program and six trimesters for the evening program.
- Demonstrated competency in clinic and completed internship and field experience requirements;
- Earned a cumulative grade point average (G.P.A.) of 2.0 or better;
- Fulfilled all financial obligations to the University;
- Current First Aid and CPR certification.

Graduation Rate

On average, more than 85 percent of Northwestern's Massage Therapy students graduate within one year of matriculation.

The School of Massage Therapy makes no guarantee of employment of students upon completion of the program.

Professional Licensure, Registration, or Certification

Statewide standards for massage therapy practice have been established in 36 states and the District of Columbia as of 2006. 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 program of study offered by the School of Massage Therapy will be eligible to sit for the National Certification Examination in Therapeutic Massage. 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.

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

This 36-semester credit, 780-hour program emphasizes a solid foundation in the basic sciences, long a Northwestern hallmark; more than 340 hours of hands-on lab experience; and a structured clinical experience within the School of Massage Therapy Teaching Clinic and other community sites.

Northwestern's School of Massage Therapy program:

- Builds a thorough understanding of the human body through 195 hours of courses in anatomy, physiology, pathophysiology, kinesiology and nutrition;
- Provides comprehensive training in massage therapy assessment and treatment techniques through a 367-hour sequence of courses;
- Prepares learners for professional practice through a 90-hour sequence of courses addressing communication, ethics, learning skills, legal issues and practice management;
- Puts learning into practice through a practicum experience that includes 100 hours of hands-on care in one of the University's six public clinics.

Students may enroll in one of two convenient program options: the day program or the evening program. The day program requires three academic trimesters to complete. The evening program requires four academic trimesters to complete.

**SCHOOL OF MASSAGE THERAPY COURSE LIST:
DAY PROGRAM**

Trimester 1

Course Number	Title	Credits	Total	Lecture	Hours Lab	Clinic
SBS1211	Human Anatomy and Physiology I	4.50	75	60	15	0
SBS1500	Medical Terminology	1.00	15	15	0	0
SMT1511	Massage Therapy Principles and Practice I	4.50	120	15	105	0
SMT1151	Professional Studies I	2.00	30	30	0	0
TRIMESTER 1 TOTAL		12.00	240	120	120	0

Trimester 2

Course Number	Title	Credits	Total	Lecture	Hours Lab	Clinic
SMT1210	Applied Anatomy	2.00	45	15	30	0
SBS1212	Human Anatomy and Physiology 2	2.50	45	30	15	0
SMT1931	Massage Therapy Clinical Rotation I	2.00	64	5	0	59
SMT2512	Massage Therapy Principles and Practice 2	3.50	90	15	75	0
SMT1152	Professional Studies 2	2.00	30	30	0	0
TRIMESTER 2 TOTAL		12.00	274	95	120	59

Trimester 3

Course Number	Title	Credits	Total	Lecture	Hours Lab	Clinic
SNU1110	Human Nutrition	1.00	15	15	0	0
SMT2932	Massage Therapy Clinical Rotation 2	2.00	64	5	0	59
SMT2513	Massage Therapy Principles and Practice 3	3.50	90	15	75	0
SMT2153	Professional Studies 3	2.00	30	30	0	0
SMT2610	Special Topics in Massage Therapy	3.50	67	37	30	0
TRIMESTER 3 TOTAL		12.00	266	102	105	59
CURRICULUM TOTAL		36.00	780	317	345	11

**SCHOOL OF MASSAGE THERAPY COURSE LIST:
EVENING PROGRAM**

Trimester 1

Course Number	Title	Credits	Total	Lecture	Hours Lab	Clinic
SBS1213	Human Anatomy and Physiology I	2.50	45	30	15	0
SBS1500	Medical Terminology	1.00	15	15	0	0
SMT1503	Massage Therapy Principles and Practice I	4.00	90	30	60	0
SMT1153	Professional Studies I	1.50	22.5	22.5	0	0
TRIMESTER 1 TOTAL		9.00	172.5	97.5	75	0

Trimester 2

Course Number	Title	Credits	Total	Lecture	Hours Lab	Clinic
SMT1214	Human Anatomy and Physiology 2	2.50	45	30	15	0
SMT1504	Massage Therapy Principles and Practice 2	3.00	90	0	90	0
SMT1154	Professional Studies 2	1.50	22.5	22.5	0	0
TRIMESTER 2 TOTAL		7.00	157.5	52.5	105	0

Trimester 3

Course Number	Title	Credits	Total	Lecture	Hours Lab	Clinic
SBS1215	Human Anatomy and Physiology 3	2.00	30	30	0	0
SMT1505	Massage Therapy Principles and Practice 3	2.50	60	15	45	0
SMT1155	Professional Studies 3	1.50	22.5	22.5	0	0
SMT1210	Applied Anatomy	2.00	45	15	30	0
SMT1931	Massage Therapy Clinical Rotation I	2.00	64	5	0	59
TRIMESTER 3 TOTAL		10.00	221.5	87.5	75	59

Trimester 4

Course Number	Title	Credits	Total	Lecture	Hours Lab	Clinic
SNU1110	Human Nutrition	1.00	15.	15	0	0
SMT1506	Massage Therapy Principles and Practice 4	2.00	60.	0	60	0
SMT1156	Professional Studies 4	1.50	22.5	22.5	0	0
SMT2610	Special Topics in Massage Therapy	3.50	67.	37	30	0
SMT2932	Massage Therapy Clinical Rotation 2	2.00	64.	5	0	59
TRIMESTER 4 TOTAL		10.00	228.5	79	90	59
CURRICULUM TOTAL		36.00	780	317	345	118

COURSE DESCRIPTIONS: DAY AND EVENING PROGRAMS

SMT1210 Applied Anatomy
2.00 credits (45 hours):
15 lecture hours,
30 hours laboratory
Prerequisite: SBS1211 Human Anatomy and Physiology I or
SBS 1214 Human Anatomy and Physiology 2 (Evening)

Students will enhance their knowledge of the major muscles of the body, their origins, insertions, tendons of attachment and actions, as well as associated bones, bony landmarks and stabilizing ligaments for each joint and major structure. Students will learn about planes of movement, lever classification and action in the body, and relationship of levers to planes of movement. The laboratory portion of this course utilizes the Maniken Professional system (anatomy-in-clay).

SMT0050 First Aid/CPR
0.00 credits (6 hours):
3 lecture hours,
3 hours laboratory

This is a basic adult CPR and standard first aid class. Students will learn basic principles and skills of CPR and first aid, including bandaging, splinting and CPR, as well as how to manage sudden illness, wounds and burns. Students must have current certification in CPR and first aid upon graduation.

SBS1211 Human Anatomy and Physiology I
4.50 credits (75 hours):
60 lecture hours,
15 hours laboratory

This is the first course of a two-course sequence in systems-based normal and abnormal human anatomy and physiology. Students will learn the design and function of the systems of the human body with emphasis on the skeletal, muscular, nervous and integumentary systems. The laboratory includes observation of prosected human cadavers.

SBS1212 Human Anatomy and Physiology 2
2.50 credits (45 hours):
30 lecture hours,
15 hours laboratory
Prerequisite: SBS1211 Human Anatomy and Physiology I

This is the second course of a two-course sequence in systems based normal and abnormal human anatomy and physiology. Students will learn the design and function of the systems of the human body with emphasis on the cardiovascular, endocrine, respiratory, digestive, urinary and reproductive systems, and the sensory organs. The laboratory includes observation of prosected human cadavers.

SBS1213 Human Anatomy and Physiology I (Evening)
2.50 credits (45 hours):
30 lecture hours,
15 hours laboratory

This is the first course of a three-course sequence in systems-based normal and abnormal human anatomy and physiology. Students will learn the design and function of the systems of the human body with emphasis on the skeletal and muscular systems. The laboratory includes observation of prosected human cadavers.

SBS1214 Human Anatomy and Physiology 2 (Evening)
2.50 credits (45 hours):
30 lecture hours,
15 hours laboratory
Prerequisite: SBS1213 Human Anatomy and Physiology I (Evening)

This is the third course of a three-course sequence in systems-based normal and abnormal human anatomy and physiology. Students will learn the design and function of the systems of the human body with emphasis on the nervous, integumentary, endocrine systems and the sensory organs. The laboratory includes observation of prosected human cadavers.

SBS1215 Human Anatomy and Physiology 3 (Evening)
2.00 credits (30 hours):
30 lecture hours,
0 hours laboratory
Prerequisite: SBS1214 Human Anatomy and Physiology 2 (Evening)

This is the third course of a three-course sequence in systems-based normal and abnormal human anatomy and physiology. Students will learn the design and function of the systems of the human body with emphasis on the cardiovascular, immune, respiratory, digestive, urinary and reproductive systems.

SNUI110 Human Nutrition
1.00 credit (15 hours):
15 lecture hours

Students learn the fundamental principles of human nutrition. The course emphasizes the importance of proper nutrition as a component of self-care for therapists.

SMT1931 **Massage Therapy Clinical Rotation 1**
2.00 credits (64 hours): 5 lecture hours, 59 hours clinic
Prerequisites: SMT1511 Massage Therapy Principles and Practice 1 or SMT1504 Massage Therapy Principles and Practice 2 (Evening); SMT1151 Professional Studies 1 or SMT1154 Professional Studies 2 (Evening); SBS1211 Human Anatomy and Physiology 1 or SBS1214 Human Anatomy and Physiology 2 (Evening)
Co-requisite: SMT2512 Massage Therapy Principles and Practice 2 or SMT1505 Massage Therapy Principles and Practice 3 (Evening)

Students provide massage therapy treatment sessions in the School of Massage Therapy Teaching Clinic, under the supervision of School faculty. Clinical Rotation 1 focuses on the application of full body massage techniques as presented in Massage Therapy Principles and Practice 1. Students participate in case conferences and/or seminars on professional issues, write clinical journals and complete other projects as assigned.

SMT2932 **Massage Therapy Clinical Rotation 2**
2.00 credits (64 hours): 5 lecture hours, 59 hours clinic
Prerequisites: SMT1921 Massage Therapy Clinical Rotation 1; SMT2512 Massage Therapy Principles and Practice 2 or SMT1505 Massage Therapy Principles and Practice 3 (Evening)
Co-requisite: SMT2513 Massage Therapy Principles and Practice 3

Students provide massage therapy treatment sessions in the School of Massage Therapy Teaching Clinic under the supervision of School faculty. Clinical Rotation 2 focuses on the application of advanced techniques, including trigger point therapy and cross fiber friction. Students participate in case conferences and/or seminars on professional issues, write clinical journals and complete other projects as assigned.

SMT2930 **Massage Therapy Specialized Clinical Rotation (ELECTIVE)**
1.00 credit (32 hours): 5 lecture hours, 27 hours clinic
SMT2930 may be repeated once
Prerequisite: SMT2922 Massage Therapy Clinical Rotation 2

Students provide a minimum of 15 massage therapy treatment sessions in a specialized clinical environment under the supervision of School faculty. Students must successfully complete an individualized learning plan

established between each student and their clinical supervisor. Learning plans in the Specialized Rotation are based on the needs of the specialized environment. Specialized rotations may take place in hospitals, hospices, long-term care centers, rehabilitation centers, community health centers or other health care environments. Students may be required to meet requirements established by the School's clinical partners.

SMT1511 **Massage Therapy Principles and Practice 1**
4.50 credits (120 hours): 15 lecture hours, 105 hours laboratory
Co-requisite: SBS1211 Human Anatomy and Physiology 1

Students learn techniques for full-body massage, including palpation skills. Students are introduced to correct body mechanics, injury prevention, table management, draping methods, and introductory charting and S.O.A.P. notation. The course includes massage therapy theory and history, and an introduction to the methods and principles of reflexology. In addition to laboratory sessions, learners are required to engage in practice massage sessions outside of scheduled class hours.

SMT2512 **Massage Therapy Principles and Practice 2**
3.50 credits (90 hours): 15 lecture hours, 75 hours laboratory
Prerequisites: SMT1511 Massage Therapy Principles and Practice 1; SBS1211 Human Anatomy and Physiology 1

Students learn the principles and methods of trigger point therapy and cross fiber friction, as applied to the upper body, including assessment, treatment and common symptomologies. In addition to laboratory sessions, learners are required to engage in practice massage sessions outside of scheduled class hours.

SMT2513 **Massage Therapy Principles and Practice 3**
3.50 credits (90 hours): 15 lecture hours, 75 hours laboratory
Prerequisite: SMT1511 Massage Therapy Principles and Practice 2

Students learn the principles and methods of trigger point therapy and cross fiber friction, as applied to the lower body, including assessment, treatment and common symptomologies. In addition to laboratory sessions, learners are required to engage in practice massage sessions outside of scheduled class hours.

SMT1503 **Massage Therapy Principles and Practice 1 (Evening)**
4.00 credits (90 hours):
30 lecture hours,
60 hours laboratory
Co-requisite: SBS1213 Human Anatomy and Physiology I (Evening)

Students learn techniques for full-body massage, including palpation skills. Students are introduced to correct body mechanics, injury prevention, table management, draping methods, and introductory charting and SOAP notation. The course includes massage therapy theory and history. In addition to laboratory sessions, learners are required to engage in practice massage sessions outside of scheduled class hours.

SMT1504 **Massage Therapy Principles and Practice 2 (Evening)**
3.00 credits (90 hours):
90 hours laboratory
Prerequisites: SMT1503 Massage Therapy Principles and Practice 1 (Evening); SBS1213 Human Anatomy and Physiology I (Evening)

Students learn an introduction to the methods and principles of reflexology. Students also begin to learn the principles and methods of trigger point therapy and cross fiber friction, as applied to the upper body, including assessment, treatment and common symptomologies. In addition to laboratory sessions, learners are required to engage in practice massage sessions outside of scheduled class hours.

SMT1505 **Massage Therapy Principles and Practice 3 (Evening)**
2.50 credits (60 hours):
15 lecture hours,
45 hours laboratory
Prerequisite: SMT1504 Massage Therapy Principles and Practice 2 (Evening)

Students complete learning the principles and methods of trigger point therapy and cross fiber friction, as applied to the upper body, and begin to learn these principles as applied to the lower body, including assessment, treatment and common symptomologies. In addition to laboratory sessions, learners are required to engage in practice massage sessions outside of scheduled class hours.

SMT1506 **Massage Therapy Principles and Practice 4 (Evening)**
2.00 credits (60 hours):
60 hours laboratory
Prerequisite: SMT1505 Massage Therapy Principles and Practice 3 (Evening)

Students complete learning the principles and methods of trigger point therapy and cross fiber friction, as applied to the lower body, including assessment, treatment and common symptomologies. In addition to laboratory sessions, learners are required to engage in practice massage sessions outside of scheduled class hours.

SBS1500 **Medical Terminology (online course)**
1.00 credit (15 hours): 15 lecture hours

Students will learn general medical terminology, including basic Latin and Greek roots, prefixes and suffixes.

SMT1151 **Professional Studies I**
2.00 credits (30 hours):
30 lecture hours

Students review post secondary-level study skills, learn how to access and generally appraise clinical research and information. Students learn effective and appropriate communication techniques for management of the client-therapist relationship and communication skills necessary for working with colleagues in the health care community.

SMT1152 **Professional Studies 2**
2.00 credits (30 hours):
30 lecture hours
Prerequisite: SMT1151 Professional Studies I

Students learn the principles of professional ethics and professionalism, focusing on the development and application of appropriate professional boundaries and the psychological dimensions of the client-therapist relationship. Students learn legal, regulatory and professional considerations for massage therapists.

SMT2153 **Professional Studies 3**
2.00 credits (30 hours):
30 lecture hours
Prerequisite: SMT1152 Professional Studies 2

Students engage in goal-setting for practice and develop a business plan. Students learn a variety of methods for managing and promoting a successful practice, and examine the strengths and liabilities of several employment settings and structures.

SMT1153 Professional Studies I (Evening)

1.50 credits (22.5 hours):
22.5 lecture hours

Students review post secondary-level study skills, learn how to access and generally appraise clinical research and information. Students learn effective and appropriate communication techniques for management of the client-therapist relationship.

SMT1154 Professional Studies 2 (Evening)

1.50 credits (22.5 hours):
22.5 lecture hours
Prerequisite: SMT1153 Professional Studies I (Evening)

Students learn communication skills necessary for working with colleagues in the healthcare community and principles of professional ethics and professionalism, focusing on the development and application of appropriate professional boundaries and the psychological dimensions of the client-therapist relationship.

SMT1155 Professional Studies 3 (Evening)

1.50 credits (22.5 hours):
22.5 lecture hours
Prerequisite: SMT1152 Professional Studies 2 (Evening)

Students learn legal, regulatory and professional considerations for massage therapists. Students engage in goal-setting for practice and develop a business plan.

SMT1156 Professional Studies 4 (Evening)

1.50 credits (22.5 hours):
22.5 lecture hours
Prerequisite: SMT1155 Professional Studies 3 (Evening)

Students learn a variety of methods for managing and promoting a successful practice, and examine the strengths and liabilities of several employment settings and structures.

SMT2610 Special Topics in Massage Therapy

3.50 credits (67 hours):
37 lecture hours,
30 hours laboratory
Prerequisite: SMT1511 Massage Therapy Principles and Practice I

Students learn additional massage therapy techniques and applications, including abdominal and sports massage. Students learn about the unique considerations for treating special populations, including older adults, persons with disabilities and persons with terminal illnesses. Students are introduced to treatment issues for other populations, including women in pregnancy. Other topics may be included.



INTEGRATIVE
HEALTH AND
WELLNESS

"Being a student at a university not only allows you to experience other natural health care modalities, but also provides excellent informational, educational and networking opportunities."

"Northwestern has an incredible group of faculty, administrators and staff who really care about their students. They all want you to succeed and will help you every step along the way."

"Everyone I worked at Northwestern with was so helpful throughout my decision-making process. I was impressed with how well-organized everything was, from the financial aid and registrar's office to the clinical internship programs."

"The clinical internship allows me to apply my education and interact with real patients. The clinic faculty are very helpful and they give each student individual attention, as well as support my ability to start my own practice after graduation. I will be ready!"



"Northwestern is an educational leader in total body care, which incorporates the mind, body, and spirit connection. Students develop an in-depth understanding of the complexities of the systems of the body. Our limited enrollment provides students with the exceptional education needed to prepare them for successful careers in chiropractic."

"The Minnesota College of Acupuncture and Oriental Medicine provides me with the knowledge, confidence and skills that I need to become a successful practitioner. Northwestern has challenged my ways of thinking, allowing me to learn from respected and skilled, full-time faculty."

"The School of Massage Therapy has a challenging curriculum that prepares students for careers in a wide variety of settings. The program offers a well-rounded, science-based education with instructors of the highest quality."

Why Integrative Health and Wellness?

The Future is Patient-Centered Health Care

“Americans spend billions of dollars exploring alternative health care. What are the best practices to adopt? How shall we promote practices that integrate body, mind and spirit? Cultivating skills that integrate health care choices and healthy living must be our focus.”

– Kevin McCarthy, D.C., M.Ed., Director, Integrative Health and Wellness program

The Certificate Program in Integrative Health and Wellness is a unique program for health care providers and those interested in serving the health and wellness needs of society. The program provides training for health care professionals and post-graduate students seeking to advance their capacity to develop and implement patient-centered services and programs that promote healthy living.

Consumers are exploring and utilizing more natural approaches to health as they assume more responsibility for managing their own care. There is a growing opportunity for health care professionals who are trained in the areas of health and wellness assessment and counseling to help serve the needs of these unique health care consumers. Northwestern's certificate program in health and wellness will provide the student with the knowledge and skills necessary to meet this growing market.

The program also prepares health care professionals to integrate mainstream and alternative concepts and approaches to health care using a patient-centered, best practices model of teaching and coaching. Students will also explore the evolving health care marketplace and methods to promote health care services to the public and within the ever-changing health care system.

The Integrative Health and Wellness program focuses on developing skills in three key domains:

Thinking Integratively:

- Understanding changes in health care systems and practices in response to alternative approaches to health;
- Developing skills to promote concepts of health and wellness;

- Exploring health care systems and practices within various approaches;
- Creating theories, models and practices of health and wellness.

Deepening Relationships:

- Moving beyond transactional health care to relationship-based health care;
- Deepening relationships and engaging each patient's approach to their own wellness;
- Developing and engaging each patient's motivation to improve their own health.

Best Practices in Health and Wellness:

- Gaining knowledge about best practices based on theory, research and clinical experience;
- Centering health care on patient needs and participation;
- Developing dialogue and communication to facilitate effective health and wellness in healthcare systems.

STATEMENT OF PURPOSE

The purpose of the Integrative Health and Wellness Program is to provide quality education and a context for students to learn and apply proven principles in integrative health and wellness. Consequently, we support and promote the field of integrative health and wellness and its integration in all health care settings.

PHILOSOPHY

The integrative health and wellness design and delivery approaches are cross-disciplinary and integrative, with a focus upon enhancing adult learners' ability and credentials to establish or work within an integrated health and wellness practice and settings. The program is built upon the interrelatedness of body, mind and spirit.

PROGRAM OBJECTIVES

Students in the Integrative Health and Wellness Certificate Program will learn to:

- Assess and clarify the health care professional's own integrative model of health and wellness;
- Appreciate the most common Complementary and Alternative Medicine (C.A.M.) models and practices of health and wellness;
- Appreciate the unique ethical, scientific and philosophic challenges faced by integrative health care practitioners;
- Assist patients in developing a personalized health and wellness awareness/assessment inventory;
- Assess a patient's overall state of health and wellness along with readiness and ability to engage in activities to improve health;
- Develop health care relationships that move beyond transactional health care into teaching, coaching and counseling relationships of health and wellness;
- Advance knowledge in the role of nutrition, activity and normal aging in designing and developing programs for health and wellness promotion;
- Develop skills in communicating and working with other health care providers in a manner that integrates patient values and provider skills;
- Understand and address the unique challenges of developing effective integrative practices;
- Consider the unique systems and structures that can be created in an integrative health care setting, including integration of diverse models or methods of practice;
- Understand how to assess quality and outcomes in the integrative health care setting using continuous improvement and best practices models;
- Explore the economics of integrative health care, including third-party payer systems that exist now and may arise in the future.

PROGRAM OVERVIEW

The Integrative Health and Wellness Certificate Program is a graduate-level program. The program is structured in a one-weekend-per-month format. The entire certificate can be completed in five trimesters (one year and eight months.)

PROGRAM STRUCTURE

The certificate program is five trimesters, which takes one year and eight months to complete. The program is designed in a weekend format, which allows for working professionals to enhance their education while maintaining their professional careers. Courses will be held on Northwestern's campus and will require attending one weekend per month. This format allows students to complete the program in less than two years.

Program Changes

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

ADMISSION INFORMATION

Admission to the Program

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 practitioners of integrative health and wellness. New students are admitted at the beginning of each trimester of the academic year: September, January and April/May. 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 (U.S. dollars). It is the responsibility of the applicant to read this catalog and comply with all provisions and instructions.

Entrance Requirements

The Integrative Health and Wellness Certificate Program is a graduate-level program. Applicants must meet the following requirement:

- A bachelor's degree with a minimum grade point average (G.P.A.) of 2.5 is required.

Admission to the Integrative Health and Wellness Program is competitive. The University expects that

most, if not all, students will exceed the minimum admission requirements.

Qualifications

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.

Persons who have been convicted of any felony or misdemeanor of a violent or sexual nature 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 reserves the right to conduct a criminal background check on all applicants.

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.

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 last 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 is to submit a fully completed application for admission. You may obtain an application online at <http://www.nwhealth.edu> or from the Office of Admissions. The application for admission must include:

1. A properly completed application for admission. Please type or print neatly;

2. An application processing fee of \$50 (U.S. 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: Please 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 must be from persons who can attest to your professional and/or academic skills. References from professors, instructors, employment supervisors, colleagues or other health professionals are preferred. Relatives and personal friends 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. Attach a 400-600 word essay describing your motivation for applying to the program in Integrative Health and Wellness and how this fits with your career goals.

Selection of Candidates

The Admissions Committee in general seeks to matriculate students who best suit the philosophies and goals of the University. Northwestern attempts to select students who have strong academic records and who demonstrate the motivational and personal characteristics suitable for a career in integrative health and wellness. Service and a caring attitude are important characteristics of future practitioners in integrative health and wellness. The University employs a rolling admissions process; therefore, early application could increase the applicant's probability for acceptance. Students are highly recommended to apply for the Integrative Health and Wellness Program at least two months before the first day of their first academic term. Transfer credit or advanced standing requests must be made at least two months before the first day of the first academic term of attendance. 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 (U.S. dollars) to reserve a position in the entering class.

This tuition deposit is non-refundable but is applied toward the first trimester tuition. First trimester students who have been accepted and paid their \$100 tuition deposit must pay the balance of their first trimester tuition on the first day of class. 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 Application

A student wishing to transfer from another program must:

- Follow the same application procedures as a new student (see previous section in catalog);
- Submit an official transcript from the Integrative Health and Wellness Program previously attended;
- Submit two letters of recommendation from faculty members of the Integrative Health and Wellness Program previously attended, as well as a letter from that program's registrar or academic officer indicating that the student applicant is leaving that program in good standing and could continue studies in their present Integrative Health and Wellness program;
- The applicant's academic record must further allow for the student to be admitted without probation or other restriction, as defined by Northwestern policies;
- A transfer student must complete at least two trimesters of resident study in the Northwestern program prior to graduation;
- Excessive indebtedness as a result of financial aid borrowing will be a factor in the Admissions Committee's decisions regarding acceptance of a transfer student. The Student Records and Financial Services Office will set upper limits of previous indebtedness.

Coursework submitted for transfer must meet the following requirements:

- Any coursework submitted for transfer must have been completed within five years of the date that a transfer application is submitted to the University;
- Any course submitted for transfer must meet or exceed the requirements for a comparable course in the Integrative Health and Wellness Program;
- Students must earn a grade of at least a C or 75 percent of possible points in any course submitted

for transfer. Courses submitted for transfer from programs within regionally accredited institutions will be accepted for transfer credit. Courses submitted from other programs may be accepted for advanced standing. Transfer credit or advanced standing may require successful completion of a competency examination, at the discretion of the Chair of the department. Competency examinations require time for appropriate planning, administration and evaluation. Therefore, the University will not accept requests for advanced standing or evaluation of transfer credit that is received within two months of a student's planned start date;

- Transfer credit will only be awarded on a course-by-course basis. Requests for transfer credit or advanced standing must be made prior to matriculation into the Integrative Health and Wellness Program. Requests for advanced standing made following matriculation will not be accepted. These policies are subject to updating and modification. Contact the Office of Admissions for current information.

Articulation Agreement with Walden University

Under an articulation agreement between Northwestern Health Sciences University and Walden University, past and present Northwestern students can apply certain Integrative Health and Wellness certificate program credits towards either Walden's master's degree in public health (M.P.H.) or master of science degree in public health (M.S.P.H.) with a concentration in Integrative Health and Wellness.

Payment

All tuition, fees and other amounts 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 \$150 (U.S. 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, fees and other amounts 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.

Readmission

A learner who is placed on administrative withdrawal may petition in writing for readmission to the Integrative Health and Wellness Program. A student who has been dismissed from the Program for academic reasons may petition in writing, once, for readmission to the Integrative Health and Wellness Program. Petitions for readmission must be submitted to the Chair. The following procedure applies:

1. A committee composed of faculty convenes to review the learner's written request;
2. The committee, chaired by the department chair, 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);
 - a date for readmission (e.g., immediately or the following academic term);
4. The Chair makes the final decision regarding readmission and communicates the decision in writing to the learner. The decision of the Chair may be appealed to the Vice President, Academic Affairs or to the President;
5. The learner's adviser monitors the progress of any readmitted learner and reports to the Chair if the learner has or has not satisfied the stipulated provisions (if any) for readmission;
6. The Chair communicates in writing to the learner that all provisions (if any) for readmission have been met, or that provisions have not been satisfied and the learner is dismissed.

GRADUATION

Graduation Requirements

The Certificate in Integrative Health and Wellness is granted to those candidates who have:

1. Completed the required course work;
2. Earned a cumulative grade point average (G.P.A.) of 2.0 or better;
3. Fulfilled all financial obligations to the University;
4. Recommended for graduation by the faculty.

COURSE LIST

IHW 500: Philosophy and Principles of Integrative Health and Wellness
(4 credits)

IHW 530: Health and Wellness Coaching, Counseling and Teaching
(4 credits)

IHW 560: Healthy Habits and Healthy Aging – Understanding Activity, Nutrition and Development
(4 credits)

IHW 580: Designing Health and Wellness Programs
(3 credits)

IHW 590: Seminar in Developing Integrated Health Care Settings
(1 credit)

COURSE DESCRIPTIONS

IHW 500 Philosophy and Principles of Integrative Health and Wellness

4.00 credits (60 hours): 60 lecture hours

Integrative health care requires skills in communication, understanding of ethical reasoning and comprehension of the complex relationships of mind, body and spirit. This understanding comes from the integration of knowledge that is commonly ascribed and taught within particular disciplines or paradigms. This course will explore the complexity and diversity of thought that exists in health care paradigms. The learner will explore the history and philosophic underpinnings of modern day systems of health care. Emphasis will be given to holistic and natural approaches to health and health care dealing with the biological, psychological, social and spiritual components of health and healing. The course will expand upon the student's understanding of the role of science in the search for "truth" and its role in the professional and ethical application of health care. The course will provide the participant with a framework for developing one's own integrated model of health and health care. The course will also examine the cultural implications of health care practices within the framework of cultural competency. An essential pedagogical concept in the delivery of the course will be the exploration of dialogue as an essential medium for the discussion and application of integrative health care.

IHW 530 Health and Wellness Coaching, Counseling and Teaching

4.00 credits (60 hours): 60 lecture hours

This course provides an introduction into the development of theories and practices of teaching, coaching and counseling. The course will explore various forms of provider/client relationships and the potential benefits and requirements of each role. Students will learn how to clarify a client's health and wellness values, essential to understanding the concept of integration in health care. It will explore the theory of transformational learning and its application in designing effective teaching programs that can clarify and expand patient health care perspectives. Theories and practices of coaching and counseling will be developed and include principles and skills in connecting meaningfully to the client, motivational interviewing, collaboratively engaging the client in health practices and implementing best practices for addressing barriers to client progress. Cultural perspectives of health, wellness and health care intervention will be discussed and awareness of integration of cultural awareness in health care counseling will be developed.

IHW 560 Healthy Habits and Healthy Aging – Understanding Activity, Nutrition and Development

4.00 credits (60 hours): 60 lecture hours

Exploring the role of developing integrative health and wellness practices that facilitate healthy aging and minimize exposure to risk factors for debilitating and disabling illness is a cornerstone of this course. This course will develop the learner's appreciation and understanding of principles of normal development and aging (genetic v. social influences) and the promotion of healthy practices that must be integrated within the patient's values and social/cultural norms. The essential role of mental/emotional development is explored. The relationships of activities, nutrition and habits of daily life to known causes of illness and loss of functional capacity are explored. Specific strategies for assessing patient health status and designing effective interventions to change health care practices are researched.

IHW 580 Designing Health and Wellness Programs

3.00 credits (45 hours): 45 lecture hours

This course will take a systems approach to exploring the influences of federal and local government, employers, culture and social systems in the design and development of health care programs. Students will take a public health perspective and explore recommendations of "Healthy People 2010." The course will explore the design, implementation and outcomes of programs related to this national health care initiative. Students will also explore the role of technology in health care, including the delivery of health care information and the role this information plays in patient choices. This course will also provide students with a basic understanding and practical knowledge in the use of health assessment surveys in gaining awareness of the needs of health care consumers in specific social settings.

IHW 590 Developing Integrated Health Care Settings

1.00 credit (15 hours): 15 lecture hours

Today, more than ever, health care practices and organizations are going through constant change and need to respond with greater speed and agility. How does one design programs that are effective from a cost and patient care perspective? What will be needed to design and implement integrated health care programs? What qualities and characteristics are essential for those designing and leading change efforts?

Offered at various times during the year, these one-day seminars will draw upon the experiences of those leading and developing integrated health care practices. The program will be open exploration of integrative health care practices and provide an opportunity for students to explore various ways in which integration is unfolding in the community.

Why Northwestern?

We Are A Community Of Caring

"Northwestern has an incredible group of faculty, administrators and staff who really care about their students. They all want you to succeed and will help you every step along the way."

– Sarah Radabaugh, chiropractic student

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- D.C., Northwestern College of Chiropractic, 2002

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- N.C.T.M.B, 1992
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- M.A., University of Arizona, 2000
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- M.B.A., University of St. Thomas, 1988
- M.S., California Polytechnic State University, 1977
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- B.Mus., University of Massachusetts, 1988

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- D.A.C.B.R., 1989
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Warren L. Moe, Professor (1982)

- C.C.S.P., 1994
- B.S., Los Angeles College of Chiropractic, 1982
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- A.A., Waldorf College, 1970

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- D.C., Northwestern College of Chiropractic, 1983

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- D.C., Northwestern College of Chiropractic, 1997

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- L.Ac.
- Dipl.Ac. (N.C.C.A.O.M.)

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- Diploma, Om., Minnesota College of Acupuncture and Oriental Medicine, 2000
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- M.P.H., University of Washington, 1993
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- M.Ac., New England School of Acupuncture, 2000
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- D.C., Northwestern College of Chiropractic, 1989
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- A.L.A., University of Minnesota, 1957
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- Ph.D., University of Minnesota, 1997
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 - B.S., University of Minnesota, 1972
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- Karen Schulz**, *Research Associate (2002)*
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- M.A., University of Denver, 1973
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 - Dipl.Ac. (N.C.C.A.O.M.)
- David J. Smith**, *Associate Professor (1996)*
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 - D.C., Northwestern College of Chiropractic, 1983
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- F.I.C.C.
- D.A.B.C.O., 1974
 - D.A.C.B.O.H., 1974
 - D.C., Northwestern College of Chiropractic, 1961
- Kim L. Swineheart**, *Associate Professor (1994)*
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- Ph.D., Purdue University, 2001
- Stacy M. Thornhill**, *Assistant Professor (2000)*
- A.C.C.R.S., 2002
 - D.A.C.R.B., 2001
 - D.C., National College of Chiropractic, 1998
- Mary M. Tuchscherer**, *Professor, Chair, Western Biomedicine Department (1985)*
- D.C., Northwestern College of Chiropractic, 1991
 - Ph.D., University of Minnesota, 1987
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- Ph.D., University of Zurich, 1966
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- B.A., Oberlin College (Ohio), 1989

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- Ph.D., University of Minnesota, 1978
- J.D., William Mitchell College of Law, 1965
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- B.A., University of South Dakota, 1959

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- F.A.A.C.P., 2001
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- D.A.B.C.I., 1996
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- B.A., University of Plano, 1974

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- L.Ac.
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- D.C., Northwestern College of Chiropractic, 1985

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- L.Ac.
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CREDENTIAL REFERENCES

A.A.	Associate of Arts	F.I.C.C.	Fellow of the International College of Chiropractors
A.A.S.	Associate in Applied Science	J.D.	Juris Doctor
A.L.A.	Associate of Liberal Arts	L.Ac.	Licensed in Acupuncture
A.S.C.P.	American Society of Clinical Pathologists	LL.B.	Bachelor of Laws
B.A.	Bachelor of Arts	L.P.N.	Licensed Practical Nurse
B.C.A.C.P.	Board Certified Anatomic and Clinical Pathology	M.A.	Master of Arts
B. Med.	Bachelor of Medicine (China)	M.Ac.	Master of Acupuncture
B. Mus.	Bachelor of Music	M.A.O.M.	Master of Acupuncture and Oriental Medicine
B.S.	Bachelor of Science	M.B.A.	Master of Business Administration
B.S.N.	Bachelor of Science in Nursing	M.D.	Medical Doctor
C.C.S.P.	Certified Chiropractic Sports Physician	M.Ed.	Master of Education
C.C.S.T.	Chiropractic Certification in Spinal Trauma	M.F.A.	Master of Fine Arts
C.E.M.	Certified Educational Microscopist	M.L.A.	Master of Liberal Arts
C.S.C.S.	Certified Strength and Conditioning Specialist	M.Med.	Master of Medicine (China)
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INDEX OF GENERAL LISTINGS

A

- About the University 11
- Academic Evaluation and Grades:
 - College of Chiropractic 46
 - Minnesota College of Acupuncture and Oriental Medicine 72
- Academic Honors:
 - College of Chiropractic 47
 - Minnesota College of Acupuncture and Oriental Medicine 73
- Academic Policy:
 - College of Chiropractic 46
 - Minnesota College of Acupuncture and Oriental Medicine 72
 - School of Massage Therapy 95
- Academic Policy Credits:
 - School of Massage Therapy 95
- Academic Standing:
 - Minnesota College of Acupuncture and Oriental Medicine 73
- Accreditation, Approvals and Legal Status:
 - Northwestern Health Sciences University 13
 - Doctor of Chiropractic 13
 - Master of Acupuncture 13
 - Master of Oriental Medicine 13
 - School of Massage Therapy 14
- Accreditation Commission for Acupuncture and Oriental Medicine (A.C.A.O.M.) 13
- Administration 114
- Admission Applications:
 - College of Chiropractic 38, 40
 - Integrative Health and Wellness 108, 109
 - Minnesota College of Acupuncture and Oriental Medicine 68, 70
 - School of Massage Therapy 92, 93
- Admission Information:
 - Bachelor's Degree in Human Biology 43
 - College of Chiropractic 38
 - Integrative Health and Wellness 108
 - Minnesota College of Acupuncture and Oriental Medicine 68
 - School of Massage Therapy 92
- Admissions Office 2, 11
- Admission Requirements:
 - Bachelor's Degree in Human Biology 43
 - College of Chiropractic 38
 - Integrative Health and Wellness 108
 - Minnesota College of Acupuncture and Oriental Medicine 68
 - School of Massage Therapy 92
- Advanced Placement:
 - College of Chiropractic 41
- Alumni Associations 25
- Alumni Relations 25
- Alumni Relations and Career Services 11, 25
- Alternative/Private Loan Programs 33
- Anatomy and Pathology:
 - College of Chiropractic 48
- Applications for Admission:
 - College of Chiropractic 38, 40
 - Integrative Health and Wellness 108, 109
 - Minnesota College of Acupuncture and Oriental Medicine 68, 70
 - School of Massage Therapy 92, 93

- Application Procedure:
 - College of Chiropractic 40
 - Integrative Health and Wellness 109
 - Minnesota College of Acupuncture and Oriental Medicine 70
 - School of Massage Therapy 93
- Approach to Learning:
 - School of Massage Therapy 92
- Articulation Agreement with Walden University:
 - Integrative Health and Wellness 110
- Assessment of Learning Outcomes 7
- Attendance Policy:
 - College of Chiropractic 46
 - Minnesota College of Acupuncture and Oriental Medicine 72
 - School of Massage Therapy 92
- Audit Policy 27

B

- B.S. Completion Courses 43
- Bachelor of Science Degree in Human Biology (B.S.) 11, 13, 42
- Back and Neck Research Program 20
- Biology Concentration:
 - Bachelor of Science in Human Biology 43
- Board of Trustees 113
- Bookstore, University 11, 20
- Business Foundations:
 - College of Chiropractic 49

C

- Calendar 2
- Campus 20
- Canadian Students: Financial Aid 33
- Career Services 25
- Catalog Contents 3
- Certificate Programs:
 - Integrative Health and Wellness 11, 13, 16, 107
 - School of Massage Therapy 11, 12, 14, 16, 91
- Certification and Licensure:
 - Minnesota College of Acupuncture and Oriental Medicine 73
 - School of Massage Therapy 97
- Chiropractic Methods and Therapeutics 49
- Chiropractic Philosophy 37
- Chiropractic Principles and Philosophy 48
- Class Size and Attendance:
 - School of Massage Therapy 92
- Clinical Education:
 - College of Chiropractic, 45, 49
 - Minnesota College of Acupuncture and Oriental Medicine 74
- Clinical Education Center, De Rusha 21, 45
- Clinical Experience:
 - College of Chiropractic 45
 - Minnesota College of Acupuncture and Oriental Medicine 74
- Clinic Names and Descriptions 24
- Clinic System, University 11, 24
- Clinical Rotations:
 - College of Chiropractic 46
- Clinician Development:
 - College of Chiropractic 49
- Cohort Default Rate 34

- College of Chiropractic 11, 15, 37
- Commission on Massage Therapy Accreditation (C.O.M.T.A.) 14
- Commitment to Diversity 7
- Communications 11
- Community Based Internship (C.B.I.):
 - College of Chiropractic 46
- Community of Caring 1, 7
- Completion Courses:
 - Bachelor's Degree in Human Biology 43
- Computer Requirement 19
- Conduct, Student 17
- Continuing Education Department 11, 25
- Consolidation Options 33
- Council of Chiropractic Education (C.C.E.) 13, 15
- Counseling Service 17
- Course Attendance and Punctuality
 - School of Massage Therapy 96
- Course Descriptions:
 - B.S. Completion Courses 43
 - College of Chiropractic 55
 - Integrative Health and Wellness 112
 - Minnesota College of Acupuncture and Oriental Medicine 81
 - Pre-Professional Program 44, 45
 - School of Massage Therapy 101
 - School of Massage Therapy (Day Program) 101
 - School of Massage Therapy (Evening Program) 101
- Course List:
 - College of Chiropractic 49, 50
 - Integrative Health and Wellness 111
 - Master's Degree in Acupuncture 75
 - Master's Degree in Oriental Medicine 78
 - Minnesota College of Acupuncture and Oriental Medicine 75
 - School of Massage Therapy 98
 - School of Massage Therapy (Day Program) 98
 - School of Massage Therapy (Evening Program) 99
- Course Load:
 - College of Chiropractic 48
- Course Requirements:
 - Bachelor's Degree in Human Biology 43
- Course Sequence:
 - College of Chiropractic 48
- Credentials References 121
- Criminal Background Check:
 - College of Chiropractic 40
 - Integrative Health and Wellness 109
 - Minnesota College of Acupuncture and Oriental Medicine 69
 - School of Massage Therapy 93, 94
- Curriculum Management Teams:
 - College of Chiropractic 48
- Curriculum Organization:
 - College of Chiropractic 48
- Curriculum Overview:
 - Bachelor's Degree in Human Biology 43
 - College of Chiropractic 47
 - Minnesota College of Acupuncture and Oriental Medicine 74
 - School of Massage Therapy 97

D

- De Rusha Clinical Education Center 21, 45
- Debt History 31
- Default Rate, Cohort 34

- Degrees:
 - Bachelor's Degree in Human Biology 13, 42
 - Doctor of Chiropractic 11, 15
 - Master of Acupuncture 11, 12, 13, 16, 68, 74
 - Master of Oriental Medicine 11, 12, 13, 16, 68, 74
- Diagnostic and Clinical Sciences:
 - College of Chiropractic 49
- Diagnostic Imaging:
 - College of Chiropractic 49
- Dial-up Access 19
- Disabled Students: Applicants and Students 18
- Disciplinary Regulations 17
- Diversity, Commitment to 7
- Diversity of Programs 11
- Doctor of Chiropractic 11, 13, 15, 37
- Drug Conviction, Student Eligibility 33

E

- Edith Davis Teaching Clinic 11, 21
- Educational Objectives:
 - College of Chiropractic 38
 - Integrative Health and Wellness 108
 - Minnesota College of Acupuncture and Oriental Medicine 68
 - School of Massage Therapy 91
- Educational Requirements of Non-U.S. Citizens:
 - College of Chiropractic 42
- Electives:
 - College of Chiropractic 64
- Entrance Requirements:
 - Bachelor's Degree in Human Biology 43
 - College of Chiropractic 38
 - Integrative Health and Wellness 108
 - Minnesota College of Acupuncture and Oriental Medicine 68
 - School of Massage Therapy 92
- E-mail Policy 19
- Emergency Leave of Absence 18
- English Competency:
 - College of Chiropractic 42
 - Minnesota College of Acupuncture and Oriental Medicine 70
 - School of Massage Therapy 94
- Extended Repayment 33
- Extracurricular Clubs 19

F

- Facilities, University 11
- Faculty 115
- Faculty Emeriti 115
- Family Educational Rights and Privacy Act (F.E.R.P.A.) 127
- Federal Assistance Loan Limits 29
- Federal Aid Debt History 31
- Federal Family Education Loan Program (FFELP) 32
- Federal Pell Grant (PELL) 28, 31
- Federal Perkins Loan 28, 31
- Federal Student Aid 31
- Federal Supplemental Educational Opportunity Grants (FSEOG) 28, 31
- Federal Work Study (FWS) 32
- Financial Aid 29
- Financial Aid and Satisfactory Academic Progress 30
- Financial Aid Counseling 31
- Financial Aid Eligibility 30

Financial Aid Enrollment Status Definitions 30
 Financial Aid: Managing 34
 Financial Aid Office 11, 27, 34
 Financial Aid Programs 29
 Financial Aid Suspension and Appeal 31
 Financial Aid: Useful Websites and Consumer Information 34
 Financial Policy, General 27
 Financial Services Office 11, 27, 34
 Fitness Center 19
 Foreign Applicants:
 College of Chiropractic 42
 Minnesota College of Acupuncture and Oriental Medicine 70
 School of Massage Therapy 94
 Foreign Students: Financial Aid 33
 Foreign Students: Student Affairs 18
 Free Application for Federal Student Aid (FAFSA) 29, 33

G

General Information 2
 General Financial Policy 27
 Goals:
 Minnesota College of Acupuncture and Oriental Medicine 67
 Goals, Guiding Principles and Fundamental Values 6
 Government, Student 19
 Grades:
 College of Chiropractic 46
 Minnesota College of Acupuncture and Oriental Medicine 72
 School of Massage Therapy 95
 Grading Policy:
 School of Massage Therapy 95
 Graduate PLUS Loan 32
 Graduate Studies 14
 Graduation:
 College of Chiropractic 47
 Integrative Health and Wellness 111
 Minnesota College of Acupuncture and Oriental Medicine 73
 School of Massage Therapy 96
 Graduation Rate:
 College of Chiropractic 47
 Minnesota College of Acupuncture and Oriental Medicine 73
 School of Massage Therapy 97
 Graduation Requirements:
 Bachelor's Degree in Human Biology 43
 College of Chiropractic 47
 Integrative Health and Wellness 111
 Minnesota College of Acupuncture and Oriental Medicine 73
 School of Massage Therapy 96
 Greenawalt Library 11, 20

H

Handbook, Student 17
 Health Services, University 11, 19, 45
 Higher Learning Commission 13
 History, University 11, 15
 Honors:
 College of Chiropractic 47

Minnesota College of Acupuncture and Oriental Medicine 73
 Human Resources 11, 127

I

Immunization Requirement:
 College of Chiropractic 40
 Integrative Health and Wellness 109
 Minnesota College of Acupuncture and Oriental Medicine 70
 School of Massage Therapy 93
 Incomplete:
 School of Massage Therapy 96
 Information Technology 11, 19
 Integrative Health and Wellness Certificate Program 11, 13, 16, 107
 International Applicants:
 College of Chiropractic 42
 Minnesota College of Acupuncture and Oriental Medicine 70
 School of Massage Therapy 94
 International Students: Office of Student Affairs 18
 International Students: Financial Aid 33
 Internet Access, Dialup 19
 Internship, Community Based:
 College of Chiropractic 46
 Inver Hills Community College:
 Pre-Professional Courses 44

L

Leave of Absence 18
 Library, Greenawalt 11, 20
 Licensure:
 College of Chiropractic 47
 Minnesota College of Acupuncture and Oriental Medicine 73
 School of Massage Therapy 97
 Loan Limits, Federal Assistance 29
 Loan Repayment: Standard, Extended, Consolidated 33

M

Managing Your Financial Aid 34
 Massage Therapy, School of 12, 14, 16, 91
 Massage Therapy as Health Care 91
 Massage Therapy as a Profession 91
 Master of Acupuncture 11, 12, 13, 16, 68, 74
 Master of Oriental Medicine 11, 12, 13, 16, 68, 74
 Mentorship 25
 Microbiology and Immunology:
 College of Chiropractic 48
 Minnesota College of Acupuncture and Oriental Medicine 11, 12, 16, 21, 67
 Minnesota Institute of Acupuncture and Herbal Studies 11, 16, 21
 Minnesota and the Twin Cities 23
 Minnesota Department of Education:
 Veterans Education Unit 14
 Minnesota Higher Education Services Office 14
 Minnesota Immunization Requirement:
 College of Chiropractic 40
 Integrative Health and Wellness 109
 Minnesota College of Acupuncture and Oriental Medicine 70

School of Massage Therapy 93
Minnesota State Grant Program 33
Mission Statement:
Northwestern Health Sciences University 2, 6
School of Massage Therapy 91

N

Natural Care Centers 11, 24, 46
New Student Orientation 17
Nondiscrimination Policy 127
Non-Program Students:
College of Chiropractic 41
Minnesota College of Acupuncture
and Oriental Medicine 72
School of Massage Therapy 95
Non-U.S. Citizens, Educational Requirements:
College of Chiropractic 42
North Central Association (N.C.A.) 13
Northwestern College of Chiropractic 11, 15, 37
Northwestern Health Sciences University 1, 11, 15
Not-for-Profit Corporation 14
Notes on Grading:
School of Massage Therapy 96

O

Occupational Outlook:
College of Chiropractic 26
Minnesota College of Acupuncture
and Oriental Medicine 26
School of Massage Therapy 26
Office of Alumni Relations and Career Services 25
Office of Student Affairs 17
Online Applications for Admission:
College of Chiropractic 38, 40
Integrative Health and Wellness 108, 109
Minnesota College of Acupuncture
and Oriental Medicine 68, 70
School of Massage Therapy 92, 93
Online Library Catalog 20
Orientation 17
Organizations, Student 19

P

Parent Loan for Undergraduate Students (PLUS) 28
Parent PLUS Loan 28, 32
Payment:
Integrative Health and Wellness 110
School of Massage Therapy 95
Peer Tutoring Service 17
Pell Grant (PELL) 28, 31
Perkins Loan, Federal 28, 31
Personal Computer Requirement 19
Philosophy:
College of Chiropractic 37
Integrative Health and Wellness 108
Minnesota College of Acupuncture
and Oriental Medicine 67
Physiology and Biochemistry:
College of Chiropractic 48
PLUS Loans 28, 32
Preceptorship Program:
College of Chiropractic 46

Pre-Professional Courses Offered:
Inver Hills Community College 44
Northwestern Health Sciences University 45
Pre-Professional Program 44
Prerequisites:
Bachelor's Degree in Human Biology 43
College of Chiropractic 38
Minnesota College of Acupuncture
and Oriental Medicine 68
School of Massage Therapy 92
Prerequisites, Completing Undergraduate Science:
College of Chiropractic 44
President 113
President's Cabinet 113
Privacy of Student Records 127
Private Loan Programs 33
Probationary Status:
College of Chiropractic 47
Minnesota College of Acupuncture
and Oriental Medicine 73
Professional Licensure, Registration, or Certification:
School of Massage Therapy 97
Program Changes:
Bachelor's Degree in Human Biology 43
Integrative Health and Wellness 108
Program Objectives:
Integrative Health and Wellness 108
Program Overview:
Integrative Health and Wellness 108
Program Structure:
Integrative Health and Wellness 108
Programs of Study:
Minnesota College of Acupuncture
and Oriental Medicine 68
Psychological Counseling, Student 17
Punctuality:
School of Massage Therapy 96

Q

Qualifications:
College of Chiropractic 39
Integrative Health and Wellness 109
Minnesota College of Acupuncture
and Oriental Medicine 69
School of Massage Therapy 92

R

Readmission:
Integrative Health and Wellness 111
School of Massage Therapy 95
Refund Policy 29
Regulations Concerning Probationary Status:
College of Chiropractic 47
Minnesota College of Acupuncture
and Oriental Medicine 73
Repayment: Standard, Extended, Consolidated 33
Research Center (W.H.C.C.S.) 20
Responsibility of Applicant:
College of Chiropractic 40
Integrative Health and Wellness 109
Minnesota College of Acupuncture
and Oriental Medicine 69
School of Massage Therapy 93
Return of Title IV Funds Policy 28
Right to Know, Student 127

S

Satisfactory Academic Progress: Financial Aid 30
Scholarships 33
School of Undergraduate and Graduate Studies 11, 14
School of Massage Therapy 12, 14, 16, 91
Science Prerequisites, Completing Undergraduate:
College of Chiropractic 44
Selection of Candidates:
College of Chiropractic 40
Integrative Health and Wellness 109
Minnesota College of Acupuncture
and Oriental Medicine 70
School of Massage Therapy 94
Stafford Loans 28, 32
Standard Repayment 33
Statement of Purpose:
Bachelor's Degree in Human Biology 42
Integrative Health and Wellness 107
Minnesota College of Acupuncture
and Oriental Medicine 67
Student Affairs Services 17
Student and Exchange Visitor Information Service
(SEVIS) 18
Student Conduct 17
Student Educational Fund Program (SELF) 33
Student Eligibility: Drug Conviction 33
Student Government 19
Student Handbook 17
Student Leave of Absence 18
Student Life 17
Student Organizations 19
Student Orientation 17
Student Records, Privacy 127
Student Records and Financial Services Office 11, 27, 34
Student Right to Know 127
Student Senate 19
Study Time:
School of Massage Therapy 97
Suspension and Appeal, Financial Aid 31

T

Table of Contents 3
Tax Exempt Organization 14
Teaching Clinics 21, 24
Test Of English as a Foreign Language™ (TOEFL®):
College of Chiropractic 42
Minnesota College of Acupuncture
and Oriental Medicine 70
School of Massage Therapy 94
Title IV Funds, Return of 28
Transfer Application:
College of Chiropractic 41
Integrative Health and Wellness 110
Minnesota College of Acupuncture
and Oriental Medicine 71
Transfer Credit:
Minnesota College of Acupuncture
and Oriental Medicine 71
Transfer Credit Policy:
Minnesota College of Acupuncture
and Oriental Medicine 71
School of Massage Therapy 94
Trimester Credits:
College of Chiropractic 46

Minnesota College of Acupuncture
and Oriental Medicine 72
Trustees, Board of 113
Tuition and Fees 34, 38
Tuition Deposit Policy:
College of Chiropractic 40
Integrative Health and Wellness 109
Minnesota College of Acupuncture
and Oriental Medicine 70
School of Massage Therapy 94
Tutoring Service, Peer 17
Twin Cities 23

U

Undergraduate Studies 14
University, About the 11
University Bookstore 11, 20
University Calendar 2
University Campus 20
University Clinic System 11, 24
University Facilities 11
University Health Services 11, 19, 45
University History 11, 15
University Library 11, 20
University Refund Policy 29
University Student Handbook 17
University Student Senate 19
U.S. Department of Labor Occupational Outlook 26

V

Veterans Education Unit 14
Vision Statement 6

W

Waivers of Requirement:
Minnesota College of Acupuncture
and Oriental Medicine 72
Walden University Articulation Agreement:
Integrative Health and Wellness 110
Withdrawal Policy 28
Wolfe-Harris Center for Clinical Studies
(W.H.C.C.S.) 11, 20
World Educational Services (WES):
College of Chiropractic 42

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NONDISCRIMINATION POLICY

It is the policy of the Board of Trustees that Northwestern Health Sciences does not unlawfully discriminate on the basis of race, color, religion, national or ethnic origin, age, gender, marital status, sexual orientation, disability, veteran status or status with regard to public assistance in administration of and access to the University's educational, research and clinical programs, student 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 very 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 (F.E.R.P.A.) AND STUDENT RECORDS

The Family Educational Rights and Privacy Act (F.E.R.P.A.) 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 F.E.R.P.A. 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 F.E.R.P.A. The name and address of the office that administers F.E.R.P.A. is:

Family Policy Compliance Office
U.S. Department of Education
400 Maryland Ave., S.W.
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.

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.